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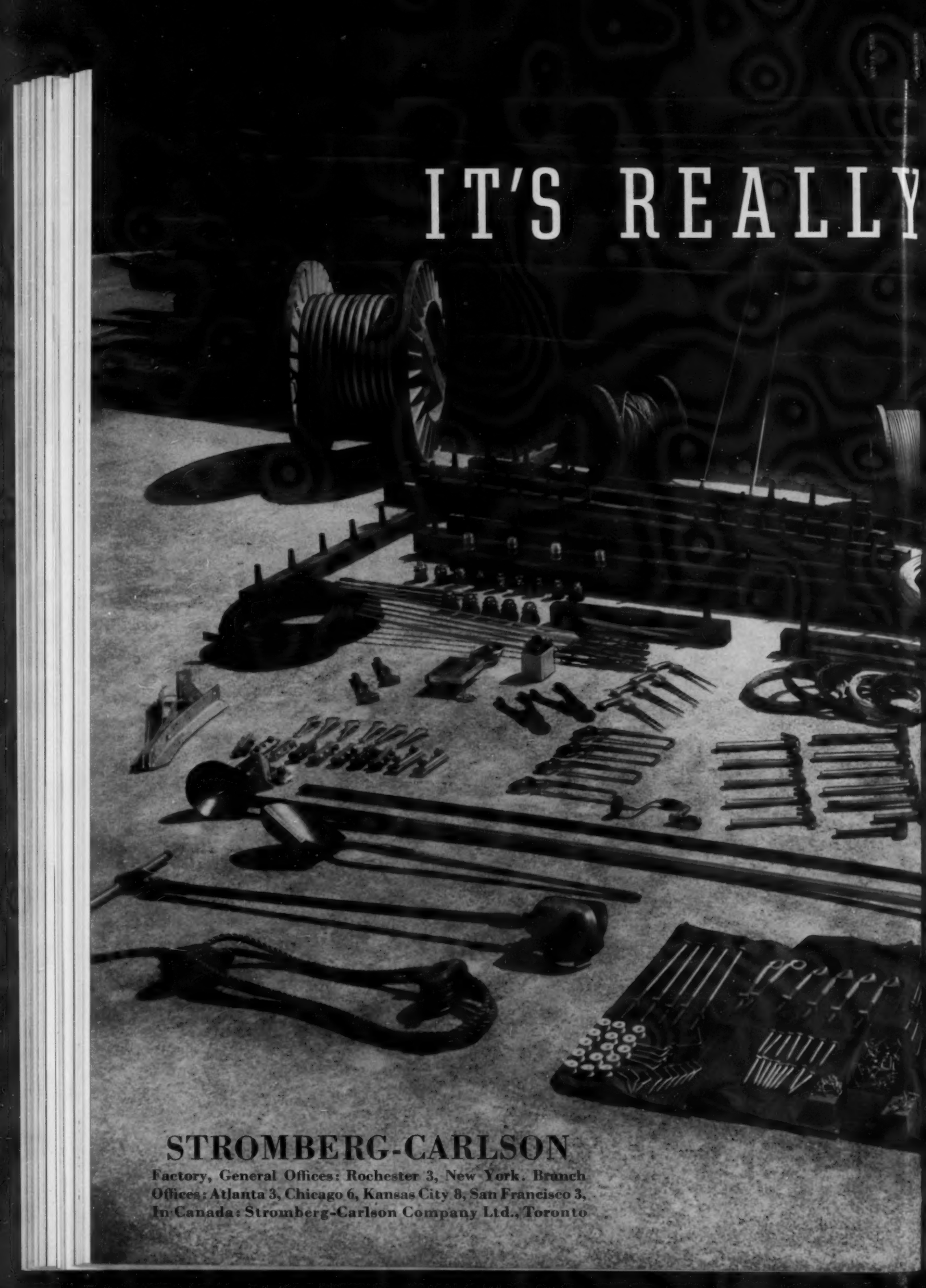
THE JOURNAL OF THE TELEPHONE INDUSTRY



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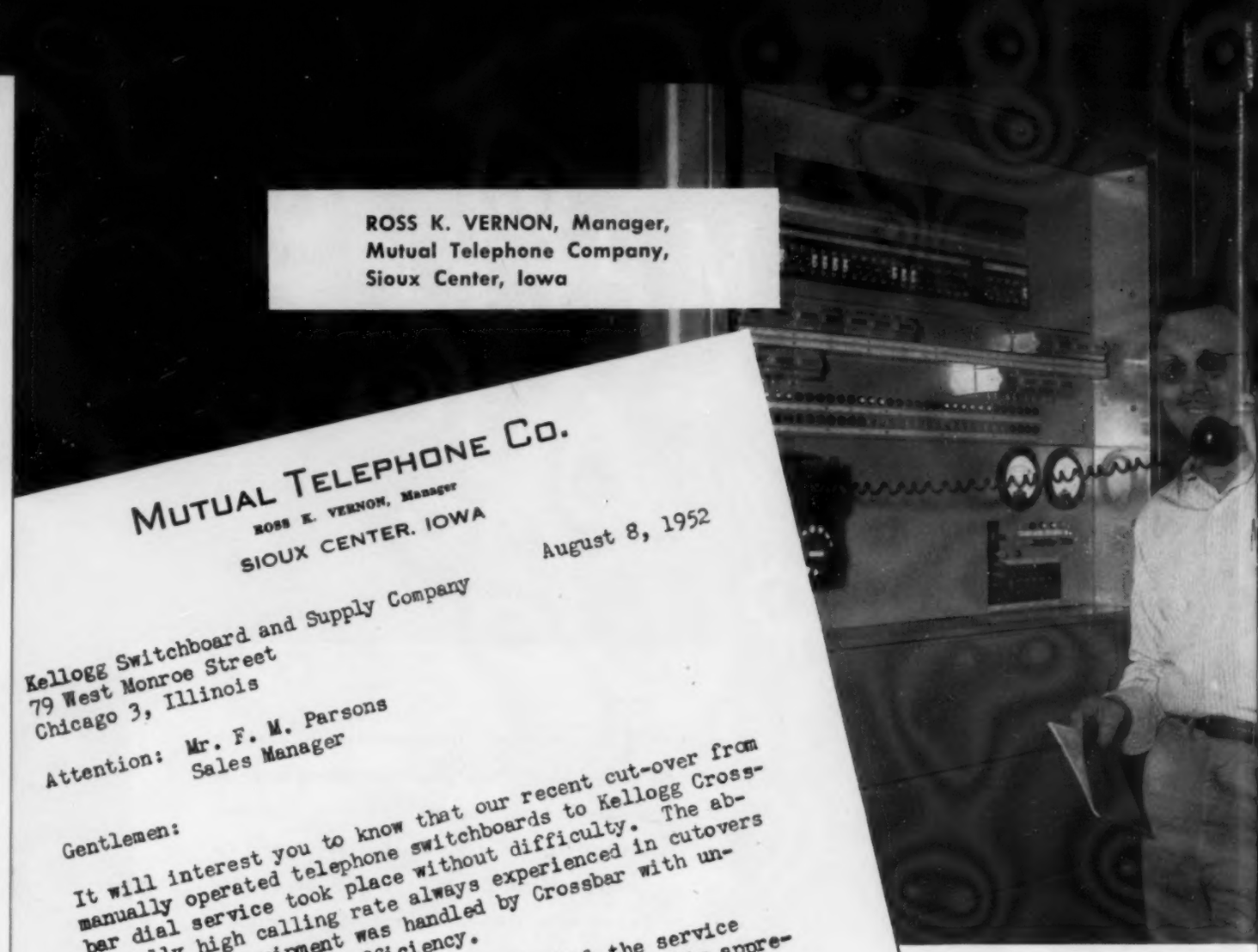

ROSS K. VERNON, Manager,
Mutual Telephone Company,
Sioux Center, Iowa

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SIOUX CENTER, IOWA

August 8, 1952

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I thought you might be interested in knowing that the Mutual Telephone Company is well pleased with our Crossbar installation.

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Ross K. Vernon, Manager
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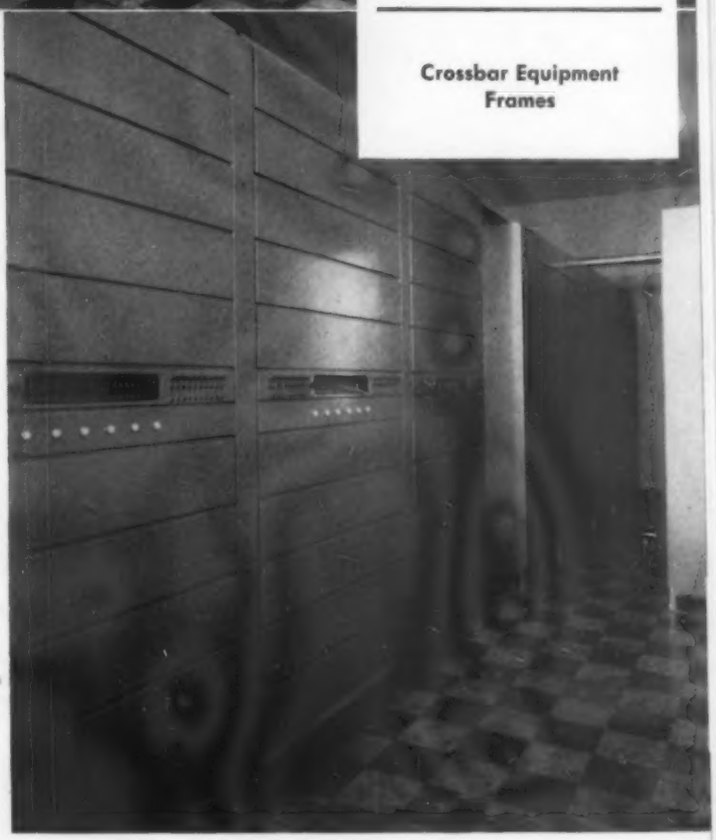

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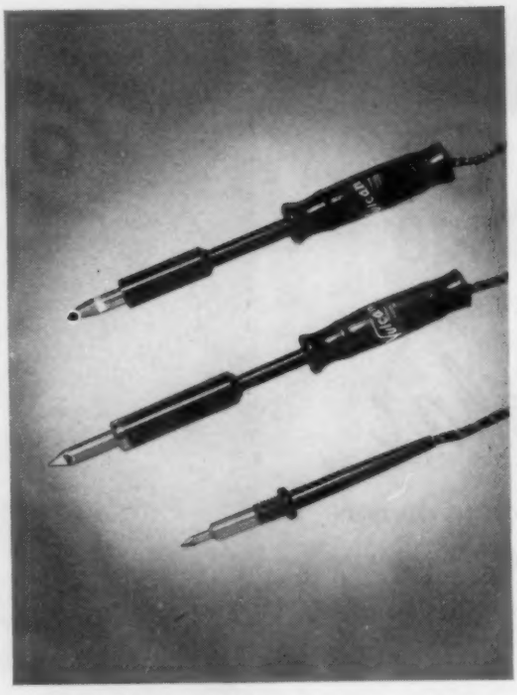

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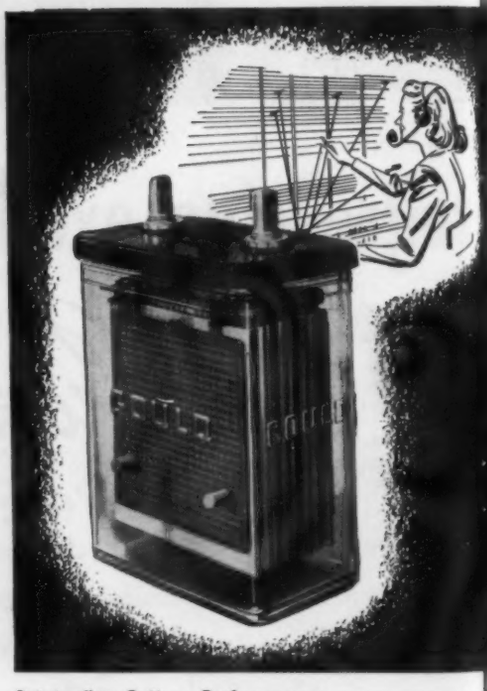

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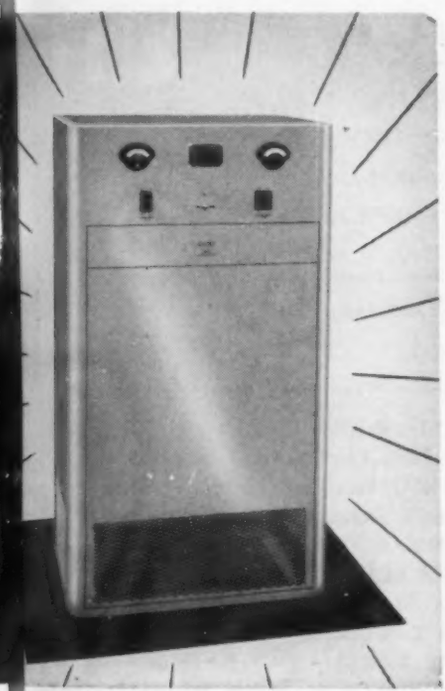

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FLASHES AND PLUGS

AND FOREVER HOLD YOUR PEACE, AMEN. Pittsburgh police said recently one burglar had a guilty conscience. Sgt. Elmer Hard reports that a man called on the telephone to say:

"Listen I'm only going to tell you once. Go out to Highland Park Zoo and look in a trash can near the entrance."

The man hung up. A check by police revealed a $125 watch, a $107 camera and a $10 cigarette lighter in the trash can—loot from a July 4 robbery of a Pittsburgh home.

• • •

DIZZY SIGNAL. A call to Center 6-7571, Moscow, Russia, will get you the Kremlin. It will not necessarily get you Stalin, if you want him, being officially the number of the Presidium of the supreme soviet. It's a foregone conclusion Stalin has an extension on it, however, so it may be regarded as the most important "center" for double talk on this distracted earth.

An interesting point is that the number appears in a new telephone directory, which contains a little over 75,000 listings in a city of about 5 million population. Contrast that with 3,405,601 telephones in operation in New York City, with its 8 million people and it makes Moscow a sort of telephone tank town.

Except for the upper crust of Commies, Soviet citizens don't make enough money to pay for telephones. Anyway, talking on or off: the telephone isn't healthy in Russia. No matter what you say it may be used against you.

Which suggests another extremely probable reason for the low telephone population in the Red capital: There must be a big turnover, considering the large number of Russians who, after an ominous knock on the door in the dead of night, disappear, never to be heard from again, by telephone or otherwise—permanently disconnected, so to speak.

• • •

GOSPEL TELEPHONE. Mrs Druscilla Pierce went before the Dallas (Tex.) City Council recently to ask that the city provide her a place to install a gospel telephone.

Mrs. Pierce explained that a gospel telephone was one that would carry "the word of God."

"We get calls and answer with the word of God; nothing else," she said.

The telephone number, she said, would be passed by word of mouth and callers would be given passages from the Scriptures.

Councilman A. Azel Adams said the city funds could not be used for such a purpose, and suggested that she get church sponsorship. Mrs. Pierce said that hadn't worked out well where it had been tried.

Then Mayor J. B. Adoue Jr. had an idea.

"We just gave the telephone company an increase in rates," Adoue said. "Why don't you ask them to give you a telephone?"

"I've been thinking about that. I think they ought to give it to me." said Mrs. Pierce.

"I think so, too," Adoue said.

Councilman Cecil D. French, who was chairman of the council's telephone rate negotiating committee, thought so, too.

Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY

September 20, 1952

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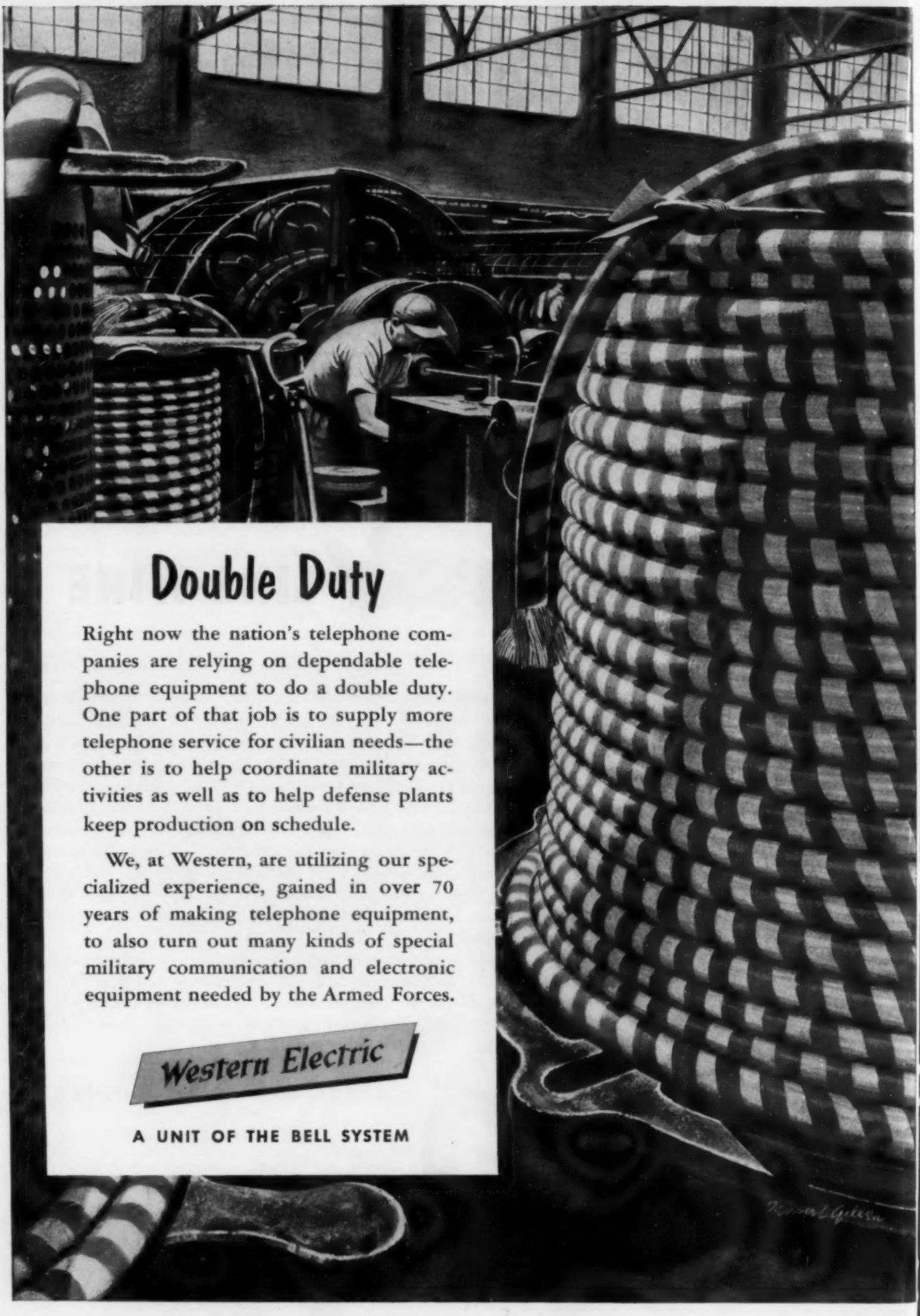

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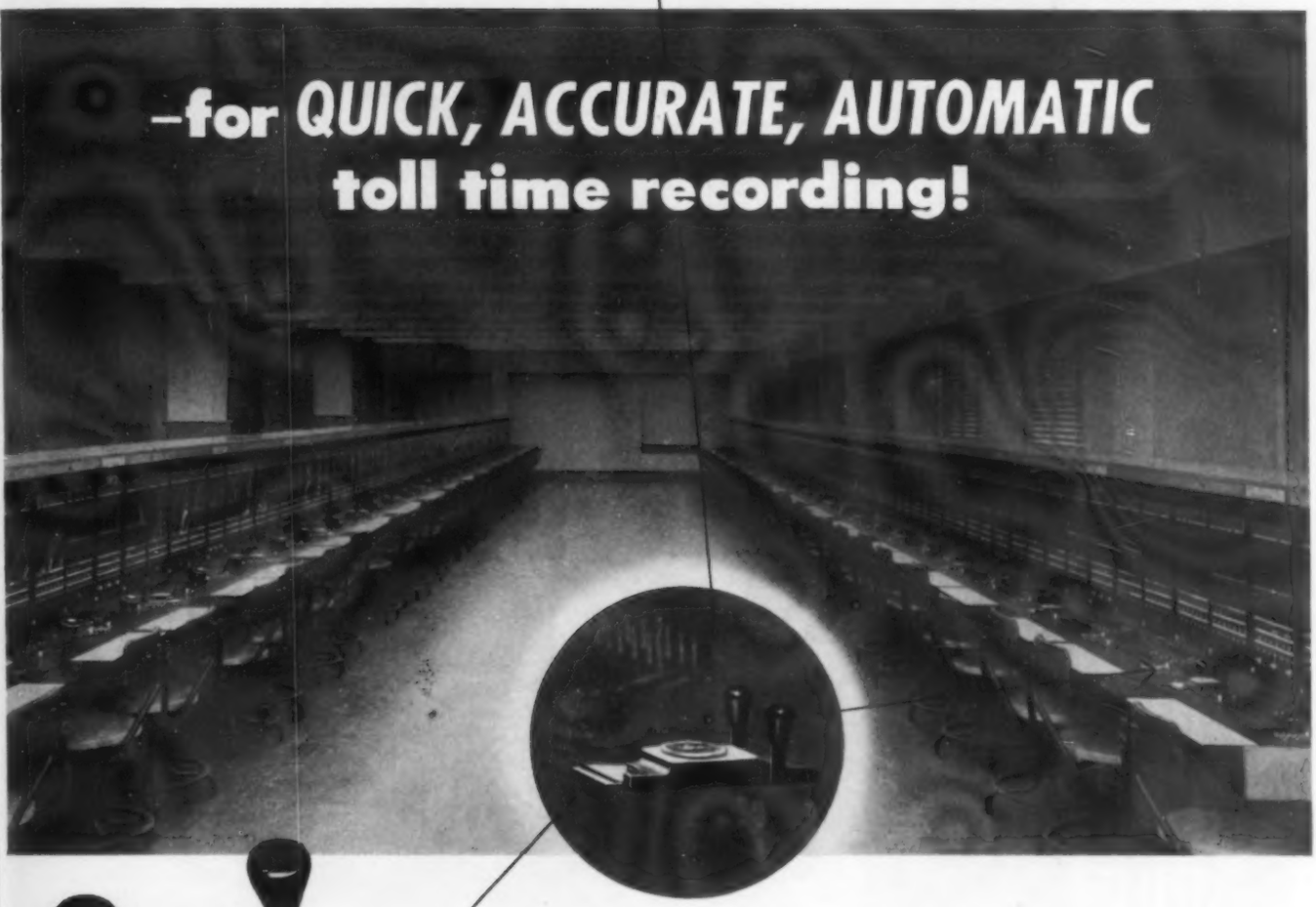

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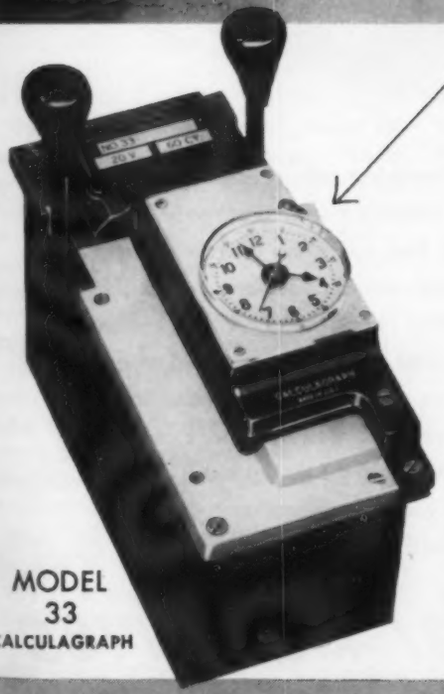

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IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH
WASHINGTON EDITOR

Boston investor's decision to sell Western Union holdings should be of interest to telephone men. Announce changes in government defense agencies. Questions whether farm supports could be continued in a recession. Reviews founding of Labor Day.

HOW would you like to buy a utility industry? Specifically, how would you like to buy Western Union—which is the telegraph industry in the United States? Anybody with 7 million dollars, or thereabouts, should be able to do this, right on the open market, now that John Fox, Boston financier, has decided to let go of 180,000 shares of Western Union stock. While this represents less than 15 per cent of the shares outstanding, the balance of the stock is so scattered that it constitutes virtually a controlling interest.

When Fox released the word that he was getting out of the Western Union picture, the announcement happened to hit a stock market that was already sinking, because of weakness in oil and natural gas shares. The news made Western Union stock drop off 2.58 points. So, there is a good chance that if you really want to buy Western Union control, you might even do it for less than 7 million dollars.

What is puzzling a good many observers, in both New York and Washington, is why the astute Mr. Fox ever wanted to get into the Western Union picture in the first place. He obtained most of his stock in 1950 when prices ranged between $20 and $44, and in 1951 when the range was $32 to $47. (It closed at $39 as of this writing.) Under the circumstances, the Boston financial wizard will stand to gain less than a million dollars in appreciation over a period when the same amount of investment would have made a lot more money in other lines.

For the telephone industry, Fox's decision to get out of Western Union might be even more significant than his decision to get into it. As might be expected from any seller who naturally wants to put the best appearance on the article he has for sale, Mr. Fox still insists that he is optimistic about Western Union's earnings future. He is quoted as saying that he wants to concentrate on other interests and relax a little rather than "spread himself too thin."

It might be worthy of passing note that Mr. Fox's other main interest at this time is also in the utility field, although you would never guess it from the name. He owns controlling interest in the U. S. Leather Co., which has extensive natural gas properties in Pennsylvania. When Fox got control of the leather company, he sold all its tanneries and inventories in order to concentrate on natural gas. Evidently he thinks there is more future in the gas utility business than in the telegraph business. Another of his major interests is the Boston *Post*, which he recently purchased.

Since he has exercised financial control over the telegraph company, Fox had been in complete agreement with its management, headed by Walter P. Marshall, president. He has always voted his stock in support of Mr. Marshall's policies.

But people in the telephone business will naturally wonder whether the canny Bostonian, taking a long-range view over a troubled financial horizon, sees breakers ahead which are not so apparent to the rest of us.

Western Union has had a difficult time keeping pace with the inflationary tide—just like telephone companies. It has had pretty fair cooperation from the Federal Communications Commission in the way of rate increases (a 9 per cent increase becoming effective just this month). But the real danger to the company would seem to be economic rather than regulatory. It could be that, as a result of rate increases, Western Union is being pushed closer and closer to the point at which it will price its service right out of the market—as compared with other forms of communications. Since nobody knows how long the inflationary spiral is going to continue, there may come a day when even telephone companies will be asking themselves the same questions.

A "Caretaker" for ODM

The appointment of Henry H. Fowler as director of the Office of Defense Mobilization (ODM) is seen as only an intermediate step toward eventual realignment of the three-tier defense controls setup [ODM, Defense Production Administration (DPA), and National Production Authority (NPA)]. It probably represents an "interim" form of administrative setup so as to preserve and consolidate the existing system until the next administration can make up its own mind about the situation. Presidential Assistant John R. Steelman, who retires as acting ODM chief, has been holding down the post since the resignation of Charles E. Wilson in March, 1952.

Mr. Fowler, who assumed the top ODM post last week, had already indicated his own desire to retire from service around the first of the year. In taking over ODM, Fowler resigned his job as administrator of NPA. Secretary of Commerce Sawyer is expected to name a new NPA chief in the near future. Fowler will keep his post as DPA chief. Thus he still has a dual controlling position. This move, therefore, is seen as a step toward expected merger of DPA and ODM and consolidation of NPA with the Commerce Department.

The present outlook is for at least six to nine more months of the controlled materials plan. By that time, the attitude of the next administration in Washington, plus the impact of developments abroad, will probably call for an over-all review of the material controls situation to determine to what extent the system should be continued and how. At least the reporting requirements under the Controlled Materials Plan (CMP) are likely to continue for the indefinite future so that full-fledged controls could be reimposed quickly, in event of sudden, full-scale war, or other emergencies.

The departmental consolidation move is being worked out at this time because top officials believe that the incoming Congress will accept the continuation of a more compact organization than it would the present rambling superstructure. Minor modifications are still in prospect for the administration and form of CMP. The NPA Communications Division will continue intact, and indefinitely, according to present outlook.

Farmer in the Dell, Never Had It So Swell

Telephone companies have been put under a great deal of pressure in the last few years to step up their service to the rural areas, even at the expense of more profitable operations elsewhere. They accordingly can understand and sympathize with the way the two presidential candidates are trying to outbid each other in making promises to the farmer.

It is probably safe to say that no single class in America today—not even organized labor—has been so carefully and continuously wooed by the politicians as those on the farm. Early this month in their double-header appearances at the national plowing contest at Kasson, Minn., General Eisenhower and Governor Stevenson solemnly committed themselves to support farm prices. Stevenson had to stand on the Democrat's platform promises of 90 per cent parity. Thus General Eisenhower was able to raise the ante to promise "full parity."

This solicitude of the government (and those who would like to become part of the government) does not stop at price support for farm commodity. As the telephone industry is well

(Please turn to page 45)

REA ALLOCATES $2,665,000 FOR COMPANIES AND CO-OPS IN THREE STATES

Rural Electrification Administration approved three loans during the week of Sept. 2 to 5, totaling $2,665,000. In addition, REA approved a loan contract for an increase of $29,000 over the original allocation.

The REA telephone companies and co-ops are planning to use the funds to furnish modern telephone service to 2,982 subscribers now without telephones, and improved service to 1,451 present subscribers. New facilities to be constructed include 1,853 miles of line. The REA loan will also finance the rehabilitation and integration of existing and acquired properties.

On Sept. 2, Hawkinsville (Ga.) Telephone Co. was allocated $278,000 for the extension and improvement of rural telephone service in Pulaski, Wilcox, Dooly, Houston and Bleckly counties.

The company now furnishes common battery service to 623 subscribers over 41 miles of line. With the REA funds, the borrower will be able to build 83 miles of line, to improve all of the existing line, convert the Hawkinsville central office to dial operation and serve 360 new rural subscribers.

When new construction and improvements are completed, this system will be operating 124 miles of line serving nearly 1,000 subscribers with modern dial telephones.

* * *

Sand Hills Rural Telephone Cooperative, Pageland, S. C., also on Sept. 2, was allocated $825,000 by REA to provide telephone service in Chesterfield, Kershaw and Lancaster counties.

The new cooperative plans to use the REA funds to build 697 miles of line to furnish dial telephone service to 1,300 rural subscribers. New dial central offices for the system will be located at: Lancaster-Ungles Cross Roads, McBee, Patrick, Bethune, Kershaw, Pageland and Chesterfield. According to present plans, service without toll charge will be available to subscribers of the Chesterfield, McBee, Patrick and Pageland central offices; the same service is available for subscribers of the Bethune and Kershaw offices. In addition, the borrower is contemplating similar service between the central offices of the systems and neighboring financial and trade centers.

McBee, Patrick and Bethune, small towns of less than 1,500 population included within the cooperative area, are now entirely without local service. However, two pay-stations are available in McBee and Bethune for outgoing toll calls.

On Sept. 3, Northwest Mutual Aid Telephone Corp., Columbus, N. D., was allocated $1,562,000 to improve and expand telephone service in rural areas of Williams, Divide, Burke and Mountrail counties.

As a basis, the newly formed cooperative proposes to acquire the properties of the following telephone companies: Williams County Mutual Telephone Co. at Ray; Epping Telephone Co.; Tri-County Telephone Co. at McGregor; Wildrose Mutual Telephone Co.; Tioga Telephone Co., Berson Valley Telephone Co., Temple Telephone Co., Mountrail Williams Telephone Co., and Sunnyside Telephone Co.,, all at Tioga; Farmers N. W. Telephone Co., and Williams County Farmers Mutual Telephone Co., both at Williston. These companies are now furnishing magneto service to 828 rural subscribers, including 204 switchers, over 592 miles of line.

With the REA loan, the borrower plans to build 1,073 miles of new line, and rebuild 473 miles of the acquired line. About 104 miles of the acquired line will be retired. The Alamo, Epping, McGregor, Ray, Wildrose and Tioga magneto central offices will be converted to dial operation, and new dial offices installed at Marmon and Round Prairie. Service without toll charge is planned for subscribers between the Round Prairie and Marmon offices; the McGregor and Wildrose offices, and the McGregor and Tioga offices. Additional service of this kind is contemplated for several of the borrower's exchange areas and their nearby financial and trade centers. The Tioga exchange area includes a new oil-producing region. This has greatly boosted demand for telephone service.

As a result of improvements and new construction afforded by the REA loan, modern telephone service will be received by the 828 present subscribers, and extended to the 1,322 rural families and establishments now without telephones.

Completed, this telephone system will furnish modern service to 2,150 subscribers over 1,561 miles of line.

* * *

REA on Sept. 5, executed a loan contract with the Elmore Telephone Co., Brownsville, Ky., for $29,000 more than the allocation of $420,000 announced in March, 1951. This increased total of $449,000 reflects a change in equity requirement on the basis of additional information provided by the company and an increase in the valuation for equity purposes of the existing properties. The extent of the new construction and improvements is not changed, merely the proportion of its costs which the government loan will cover.

The Place of Bank Loans in Financing Construction Programs

By THOMAS W. McMAHON JR.
Assistant Cashier
The Chase National Bank
New York City

EXTENDING bank credit to a telephone company, particularly one that is expanding rapidly, involves considerations differing considerably from those encountered in making a loan to an unregulated industrial or commercial enterprise.

To begin with, the economics are vastly different. The bulk of a telephone company's funds are invested in fixed plant and equipment. Since utility companies in general do not manufacture or distribute a commodity, but instead supply a service, there is no occasion for these companies to have on hand for processing any considerable volume of current assets in the form of inventories or raw materials. There is then virtually no inventory risk, an important factor to be weighed in the extension of credit to a manufacturing or merchandising concern.

Further, the problems of collections and credits are of less significance for telephone companies than for merchandising concerns. One could say, even though a utilities business is not done on a strict cash basis, that there is essentially a very low bad debt risk.

Next, a telephone company's service is highly essential and the demand is widely spread among different segments of the economy, thus providing for a continuing and diversified market to a degree not found in the more competitive businesses.

More significant probably than any of the foregoing is the fact that telephone companies, like all utilities, are regulated. In exchange for exclusive franchise rights within their service areas, their rates are subject to regulation, and partly as a result of this and partly as a result of sound business practice, rate structures are substantially below the level that would generate excessive profits.

Consistently adequate earnings are the foundation of an Independent telephone company's ability to render proper service and raise the necessary capital for growth.

Telephone companies, although fortified against some of the risks of other businesses are, however, vulnerable to the impact of adverse rate regulation. The important question, therefore, is, "will regulatory bodies permit rate levels which will result in earnings high enough to justify investor confidence in telephone company securities," particularly in equity securities. This is the crux of the banker's problem in appraising the credit position of a telephone company.

The large capital investment, which is characteristic of utility companies, and the steady growth which such enterprises have experienced, have made the availability of new capital of critical importance. Whereas internal financing, that is, the retention of earnings and the use of depreciation funds, may frequently furnish all or a substantial part of the funds required for expansion of a manufacturing or merchandising enterprise, a telephone company, by reason of its high ratio of plant investment to revenues and of its regulated earnings, must obtain funds from outside sources for any expansion beyond nominal growth.

Though long accepted by the large utility companies as a characteristic of the industry, it is only in the comparatively recent past that the rate of growth and the demands for improvement in service have made it necessary for the smaller telephone companies to seek outside capital. This condition has been brought about by several factors, among them (1) a general tendency on the part of American industry, perhaps associated with the defense effort, to decentralize its operations; (2) a constant and apparently increasing trend away from the large cities and toward the suburbs; (3) the generally higher standard of living obtaining today, and (4) the insistence on the part of rural residents for telephone service as good as that available in the large centers.

As a basic caveat of utility finance, because of the economic characteristics of the industry as a whole, capital funds must be long-term in nature, namely, bond and common or preferred stock funds. Obviously in an income-regulated industry, too rapid a repayment program would be ruinous.

You may ask now: How do commercial bank funds, which are by their very nature essentially short-term, fit into this picture? The proper function of a commercial bank, when advancing moneys to a utility company, is to bridge the gap between (a) financing capital additions from earnings and (b) the sale of permanent securities. Its proper use is based upon the fact that bonds and preferred or common stocks can more readily and more advantageously be sold on demonstrated than on estimated results. It is not, however, nor can it ever be properly assumed to be, a substitute for long-term money.

Commercial bank money can be of considerable advantage to a utility company. The management of an Independent telephone company may not have a free choice as to when or how much additional capital investment is required. Rather for the most part the extent and the timing of the Independent telephone company's construction program is determined by the service requirements of the territory it serves. Temporary loans permit a company's management to increase its facilities at the time the improvements must be made, leaving temporarily for the future the details of arranging permanent financing.

The use of bank funds permits management to exercise another kind of timing advantage; namely, it has a freer choice to select the most propitious point in time for the sale of its long-term securities. Should more favorable conditions be encountered during the construction program a bank credit such as Chase offers permits prepayment without penalty at any time

from the proceeds of permanent financing.

Among other advantages which are available under bank financing is the large degree of flexibility. Many times, because of equipment delays, shortages, miscalculations or over-runs, a construction program, at completion, may be substantially different than was initially planned. The Chase, like other commercial banks, attempts always to give full consideration to changed requirements of its borrowing customers. Further, should modifications, renewals or extensions be in order, such changes may be accomplished without a host of additional expenses.

Speed is also a definite advantage. Once the bank is provided with full information concerning the construction program and ultimate financial plans, it is possible, in many cases, to arrange for the mechanics of a bank loan over the telephone.

Another advantage is simplicity. An average bank loan is accomplished with a minimum amount of paper work and the documents do not have to incorporate the rigidity that is inherent in a contractual arrangement extending over 20 or 25 years.

Returning again to the importance of a present or potential market for telephone company securities, a bank loan to a telephone company, like any other bank loan, must have a discernible pay-out. Since a bank loan to a telephone company cannot be repaid from the liquidation of inventories as is the case with the usual bank loan to industry, it must, of necessity, either be repaid from earnings or from the proceeds of some other form of financing.

Due to the fact that in a regulated industry it is almost impossible to absorb from internal cash resources the cost of expanding while at the same time paying for past growth, the application of an amortizing bank loan is extremely limited, being confined to relatively static situations or situations wherein the greatest portion of the program has already been financed and nothing more than nominal growth can be foreseen. Essentially then, in making loans to the telephone industry, commercial banks are confined to lending to those companies which can reasonably expect to make payment from the proceeds of the sale of either bonds or preferred or common stocks or a combination of such securities.

A commercial bank, like a telephone company, is a service institution. One of its functions is to provide checking privileges. Its deposits are subject to withdrawal on a moment's notice. Liquidity or the ability to pay out deposits immediately is, therefore, its prime objective. A commercial bank preserves it liquidity when making capital loans only when its borrowing customers have ready access to the capital markets for long term equity or debt financing. Reduced to its essence, a commercial bank can make capital loans confidently only when there is a market, present or prospective, for the securities of the borrower.

Our studies at Chase make us confident that there is such a market, both a local market for equity securities (as many Independent telephone companies have found to their distinct advantage) and an institutional market for debt securities. Many companies (in fact 46 of those Independent telephone companies which have arranged bank credits with Chase) have sold either common or preferred stocks to their present stockholders, their subscribers, or the public in their service areas to meet an equity requirement under an agreement, to further their construction programs or to repay loans.

Things to Remember

The first Marshall Field, Chicago merchant prince, once listed these as 12 important things to remember: 1—The value of time; 2—The success of perseverance; 3—The pleasure of working; 4—The dignity of simplicity; 5—The worth of character; 6—The power of kindness; 7—The influence of example; 8—The obligation of duty; 9—The wisdom of economy; 10—The virtue of patience; 11—The improvement of talent; 12—The joy of originating.

This indicates that there can be developed a local market for equity securities of Independent telephone companies in those instances where the management is well regarded and has established adequate rates and good public relations through service rendered. The ability to sell preferred or common stock of a local telephone company within its service area is probably based, to a large extent, upon the reputation of the directors, officers and employes of the company. This imposes upon them a responsibility to justify that public confidence by being satisfied in their own minds that the securities offered are sound investments and that all appropriate steps have been and will be taken to make and keep them so. As stated previously, earnings are a prerequisite to the sale of equity securities.

There has been a trend toward more general acceptance of long-term debt issues of Independent telephone companies by institutional buyers, particularly life insurance companies and pension and other trust funds. The entree of pension and trust funds, on the buying side, is of comparatively recent vintage. Indications are, however, that these investors, particularly pension funds, will be an increasingly important source of long-term investment capital. As for the life insurance companies, of which there are 684 legal reserve companies in the United States, they clearly make the largest contribution to the pool of investment market funds. (In 1920, life insurance companies, in the aggregate, held in portfolio less than 7 per cent of the total amount of corporate long-term debt. Thirty years later this proportion was above 40 per cent. Because of the long term over which their policies run, this growth is likely to be the most persistent.

A commercial or savings bank must adjust its investment position whenever the demands of depositors change, whereas the life insurance business, once expanded, continues to produce a stream of premium income likely to flow for a substantial period of years. Since 1940, group annuity plans by large business concerns for their employes have created another set of contract premiums which promise to add large amounts to life company investment funds. The life company, it must be remembered, is under constant pressure to keep fully invested.

The mortgage bonds of Independent telephone companies, where there is adequate protection in earnings and assets and also capable management, are attractive to life insurance companies for several reasons:

(1) The relatively attractive yield.

(2) A greater familiarity with telephone problems and telephone company situations as time goes on and with this growing familiarity a realization of the basic credit goodness of the telephone industry. (The fact that telephone companies are regulated imputes to their securities a measure of safety that is inherent in all public utility situations and which is not always present in industrial situations.)

(3) A realization of the essentiality of a strong private communication system, particularly in this day, because of the vital importance to national defense.

(4) Investment in small utility situations provides life insurance companies with an opportunity to be of service to American small business.

In the interests of assisting the Independent telephone industry in broadening and expanding this source of capital, Chase, in June, 1951, held a meeting in its offices at which there were present representatives of 22 leading life insurance companies, as

well as representatives of several Independent telephone companies. The meeting provided an opportunity for considerable discussion by those in attendance of conditions affecting this type of financing and was productive of very gratifying expressions of insurance company interest. In all, we of the Chase are confident that there is a very real market for telephone company securities which is not just a nebulous thing. As of this time, a significant number of Chase loans to Independent telephone companies has been repaid either through the sale of equity stock or from the proceeds of long-term debt financing arranged with life insurance companies.

Aside from the insurance industry which has indicated a substantial interest, many commercial banks are sympathetic to the industry's problem. Quite a number of banks located in the service areas of those Independent telephone companies which have arranged for standby credits, are participating with Chase in such credits. We always encourage local banks to participate and this fact is brought to the attention of each prospective borrower. Chase itself has demonstrated confidence in the Independent telephone industry and has granted more than 100 credits for Independent companies exclusive of system companies located in 28 states ranging from small to large amounts and is engaged in further activity in this field.

The basic bank vehicle for the utilities industry is what is known as the standby construction credit. This type of loan arrangement has been widely accepted in the industry as being uniquely adapted to utility construction requirements. Under a standby construction credit, the borrowing company may, by contract, avail itself of borrowings up to a stipulated amount during a specified construction period and is permitted a stated time thereafter in which to demonstrate the anticipated earnings resulting from the construction and to consummate a previously planned program for permanent financing. The standby construction credit is tailor-made to fit the particular requirements of each individual company.

To illustrate this, let us assume that the XYZ Telephone Co. contemplates a dial conversion program. The program, because of improvements to be made to outside plant, scheduled delivery dates of equipment and actual installation and cut-over will, according to best available estimates, require perhaps 18 months or so to complete. With a knowledge of these facts, and assuming satisfactory conditions otherwise, a commercial bank, speaking for Chase,

"With teen-agers it was the only solution."

would probably permit an 18-month take-down period, during which time the company could borrow from time to time up to the stipulated maximum amount of the loan as work progresses. Since new properties may not produce anticipated results immediately upon cut-over, the notes would be expressed to mature a certain period beyond the initial 18 months, which period might well be a year or more. The purpose of this additional time period is to permit the company to improve the scope and quality of its service, to secure adequate rates and to demonstrate up to a year's earnings on the new basis of operation before going to the capital markets for the sale of permanent securities.

During all of the 30 months, as in the above illustration, the company would pay interest on borrowed funds but no repayment of principal would be required. During the standby period, a fee is charged, based on the unused portion of the credit. This fee is only a fraction of the borrowing rate and is compensation to the bank for insuring the borrower that the full amount of the credit is held available for a fixed period of time at a predetermined rate of interest under definite contractual conditions negotiated in advance.

The standby construction credit is particularly applicable when used to finance a program which must not and cannot be interrupted. An example of this would be the case of a one-exchange company that is embarking upon a conversion program which may take two years to complete and involves a substantial amount of money. It is readily apparent that such a company would be ill-advised to consider a financing plan that did not provide for enough money to cover the entire project and, further, did not permit enough time to complete the project. A standby credit in such a case enables the company to assure its suppliers that moneys will be forthcoming for equipment when delivered, thus resulting in the telephone company's obtaining an improved credit rating with manufacturers of telephone equipment.

It is also uniquely designed for a company which does not have a history of adequate earnings on its present scale of operations and must be permitted sufficient operating experience on the new basis before its securities will be salable. Remember again that although an insurance company's apparent security for a loan it may make to an Independent telephone company may be a first lien on that company's property, its real protection is, just as in all loans, the earning capacity of the operating company. Many times an interim bank loan is the only way such a company can improve its operations and equity position to the point where it could qualify earnings-wise for an insurance company loan.

Larger companies with established markets for their securities also use standby credits to good advantage. Permanent financing can be an expensive project if resorted to too frequently and for small amounts. Particularly for the company that is growing rapidly, the use of bank money to carry a program for a period of time permits such a company, assuming that it is operating under an established indenture and has the right to issue additional bonds thereunder, to go to the capital markets less often and for larger amounts in each instance.

In negotiating standby credits, so many variables have been found to exist that standardization of requirements and terms has been almost precluded. Certain broad considerations, however, may be mentioned.

The Chase program is directed almost entirely towards the corporate form of organization because this form of organization permits issuance of securities in accordance with generally accepted principles of public utility financing. The corporate form also is manifestly the most flexible and provides for continuity of operation separate and distinct from extraneous affairs of individuals. The profit motive, basic to a private enterprise system, must be present from a private lender's standpoint.

Capable management is a prerequisite to the bank's willingness to extend credit in this field. Prior to making advances, the bank must have confidence that the company's management is fully qualified to operate the company in a sound manner. It is, therefore, necessary to know that the company is large enough or will become

(Please turn to page 42)

By RAY BLAIN

CABLE SPLICING *Made Easy*

CABLE splicing is usually a difficult and dreaded task for every small telephone company and even for the larger operating companies it represents an expensive and time-consuming operation.

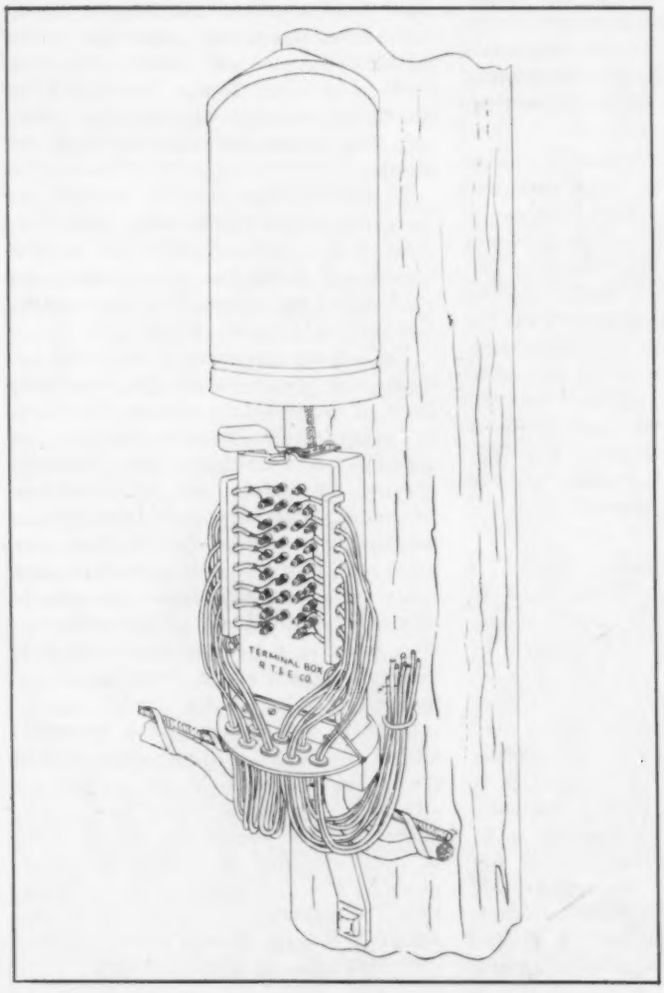
Men properly trained in the special skills of good cable splicing are few and their services are always at a premium in the present highly competitive labor market. For this reason, in order to satisfactorily meet the cable splicing needs in today's rapidly expanding telephone industry, it is necessary to provide special materials and methods so that the greater part of the splicing work in the small exchange may be performed by the lineman, installer or troubleman.

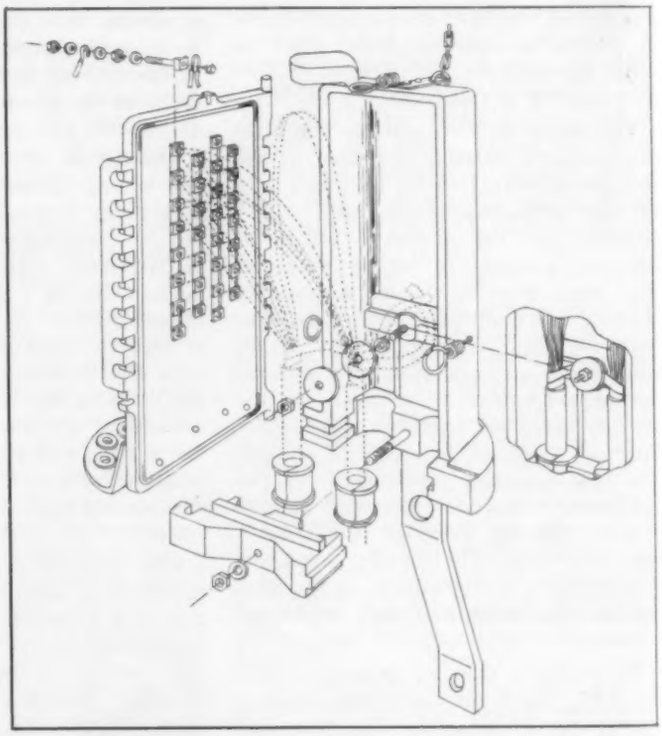
A big step has been made in this direction by the design and manufacture, by the R T & E Co. of Milwaukee, of the MP-type cable terminal which makes possible an economic and convenient means of terminating pairs in a cable distribution plant. This terminal is designed for use on plastic-insulated and jacketed cables and up through 101-pair cable can be looped through the terminal by this new method.

The new terminal is being manufactured in one size only, but is, however, arranged for terminating 6, 10 or 16 pairs. A six-pair terminal may be changed to a 10 or 16-pair terminal in the field by merely installing additional binding posts in the face plate. These extra binding posts may be obtained at a very modest cost. The conversion of a terminal from six to 16 pairs requires only a few minutes time of a lineman.

The illustrations on this page show the essential structure of the described cable terminal in service and the following description tells the complete simple procedure of installation.

When placing cable for use with the MP-type terminal, a 36-inch total loop must be left at each terminal installation pole. To install the new terminal, place the top hole of the mounting bracket over the throughbolt used to support the cable and strand. Then, merely place an extra nut on the bolt and tighten firmly. Next, drive a ⅜"x 4" lag screw into the pole through the bottom hole of the bracket. Remove the aluminum cover from the terminal and permit it to hang free, suspended by the retaining chain on the opposite side from the cable. Now, remove the locking plate at the bottom of the terminal and the face plate while working inside the terminals.





LEFT: Cable terminal assembly. ABOVE: Terminal in service.

Now place two proper size rubber grommets over the cable at the bottom of the terminal and press firmly into the cut-outs in the base of the chamber. Replace the locking plate and nut and tighten.

The next operation is to remove the jacket from the cable inside the chamber and fasten the aluminum sheath of the cable to the grounding post. This operation provides grounding protection for the cable and continuity of the sheath through the terminal. Replace the face plate into the hinged or open position on the terminal.

Now select the pairs to be terminated and remove approximately ½" insulation from the conductors. Place the exposed portion of the conductors under the washer head screws on the proper binding posts and tighten the screw. Close the face plate and replace the spring locks and the cable splicing is complete. Drop wires may now be installed through convenient entrance grommets at the bottom and secured by fanning strips at each side of the face plate and connected to the desired terminal nuts on the face plate. The aluminum cover can now be slipped over the entire assembly to provide a drip-proof and insect-proof unit.

Where larger size cables than 101-pair are to be terminated or where no loop is available, a plastic cable stub may be connected to the terminal box and spliced into the main cable by conventional methods.

This new cable terminal appears to possess numerous advantages for use in the Independent telephone field. In the first place, its initial cost is low as it requires no additional material to install other than one lag screw and a through-bolt nut, costing approximately 20 cents. It also requires small shipping and storage space and is easy to handle.

The installation cost is extremely low since it requires no special tools such as platform, ladder, furnace, metal pot, etc. A competent lineman can install the MP-type cable terminal and save the user considerable in labor costs alone. The terminal also provides an ideal test point when locating trouble in exchange cable.

It should be noted that the count of a terminal can be easily changed at any time it becomes necessary without the services of a cable splicer. This feature will permit a distribution cable to be used to its full efficiency at all times in a properly engineered plant and reduce to a minimum the amount of drop wire required. If the terminal is installed on a 100-pair cable, any pair can be terminated on any terminal at any time.

We predict that this new terminal will prove extremely popular, economical and convenient in the Independent telephone field.

Associated Company Installs 500,000th Telephone

The 500,000th telephone in the system of Associated Telephone Co., Ltd., Santa Monica, Cal., was installed on Aug. 29 in the home of Mr. and Mrs. John Southward, Downey, Cal.

"At the end of 1945 there were 212,579 telephones in the territory now served by the Associated company," said President Edwin M. Blakeslee. "Back of the installation of this 500,000th telephone lies an intensive program of expansion. To more than double the number of telephones in service since 1945, the company has invested more than 81 million dollars in automatic switching equipment, cable, wire, poles and underground conduit, new buildings and automatic equipment, and for the many other facilities necessary to expand, operate and maintain a modern telephone system."

"The tremendous population increase in the areas served by the company has resulted in an average of about 3,300 applications for telephone service each month. To keep pace with this continuing demand, the company is installing new telephone facilities as rapidly as they can be engineered and manufactured."

Associated Telephone Company, Ltd. serves approximately 100 communities in seven Southern California counties. With an organization of almost 5,300 men and women, it has an annual payroll of approximately $17,500,000. It is the largest Independent telephone company in the United States and is a unit of General Telephone System.

I Am the Bill of Rights

I am YOUR Bill of Rights and if I could speak, this I would say:

I am 161 years old, having been born on December 15, 1791.

I am the first ten amendments to the Constitution. Until I was written into the Constitution that document was like a body without a soul.

I am YOUR BILL OF RIGHTS.

Don't take me for granted. Like all mortal creations, *I can be killed.*

The giant shadow of totalitarian state-slavery moves over the world. Wherever that shadow falls, I am obliterated. That shadow *has* fallen over the United States.

Three men—Thomas Jefferson, James Madison and George Mason—fathered me. As men brought me to life, I can be slain by men—and will be slain unless YOU and YOU and YOU traditionalist Yankee Doodle Americans organize to *defend me.*

I am the BILL OF RIGHTS.

I am freedom of religion, freedom of speech, freedom of the press, freedom of assembly. I am the privacy and sanctity of your home. I am your guarantee of trial by jury, as I am the policeman who guards your property rights.

Cruel and unusual punishment and excessive fines and bail cannot be visited upon you so long as I am *alive.* I order that *all* rights not specifically mentioned in the Constitution shall be retained *by* YOU—the people. I am the rights of the States against engulfing centralized power.

I am the BILL OF RIGHTS—your signed lease to spiritual, mental and physical freedom. I ask you to meditate on all my ten clauses. Memorize them. Engrave them on your hearts.

My existence depends on your vigilance — on how vigilantly you watch your rulers. And my eternal enemies, known as *dictators,* are abroad in the world and *here* in the United States.

Personal unlimited power has destroyed the liberties of many peoples in ancient and modern times. It *can* happen to you, and maybe, subtly and unknowingly to you, it is happening.

Put every law that is proposed in Washington and elsewhere into the crucible of MY TEN COMMANDMENTS. Your question must always be: Not what does a law *give me,* but what does it *take away* from me?

I am the BILL OF RIGHTS.

When I am violated, a *part of you dies.*

I am 161 years old. Will I reach my 200th year? *That depends on you and your children.*

Reprinted from New York Daily Mirror

THE OPERATOR'S Corner

BY
MAYME WORKMAN
TRAFFIC
EDITOR

WHEN an "A" board toll call is referred to the supervisor because the operator failed to notify the customer before the end of conversation when he had requested her to do so, and the chargeable minutes exceed the specified period and the customer expressed unwillingness to pay, the supervisor should make a reasonable effort to secure acceptance for the full conversation time. If the calling party accepts it, she will enter "accepts overtime" on the face of the ticket.

If the calling party is unwilling to accept full conversation time and conversation ended promptly after notification, say within a minute, the supervisor will determine from the customer the length of time for which he thinks he should pay. She will arrive at a reasonable adjustment in view of the circumstances and will tell him that she will give him credit for the time over that amount.

In this type of case it will be necessary to bill the call at the full rate, but a credit can be arranged. The supervisor will say, for example, "It will be necessary to bill the call for the full time, but I will give you a credit of (number of minutes allowed as credit) minutes." The length of time for which he will pay should not be less than the specified period. The supervisor will enter the full number of chargeable minutes in the regular way and will write "credit (number of minutes allowed as a credit) mins." across the face of the ticket and "refuses overtime" on the face of the ticket.

If the supervisor quotes the amount of the charge, she will enter the charge for the full conversation time. She will then compute the charge for the net time (full time less the time allowed as a credit) and will enter "net (amount of net charge)" beneath the charge entry.

If the calling party is unwilling to accept it and conversation did not end promptly after notification, say within a minute, the supervisor will explain that since notification apparently was not used for terminating conversation promptly no adjustment is applicable. If he still expresses unwillingness to accept the full conversation time, the supervisor will tell him that it will be necessary to bill him for the full conversation time and that he may take the matter up with the business office when he receives his bill. The supervisor will enter the full number of chargeable minutes in the usual way and will write "refuses overtime" on the face of the ticket.

If notification was not given before the end of conversation on an "A" board toll call, the supervisor will reach the calling party, apologize for not notifying him as requested, and tell him of the chargeable minutes. The supervisor will then proceed in general as when conversation ended promptly after notification.

On "A" board toll calls, as well as on all other calls timed by the operator, every effort should be made to notify the customer at the end of a specified period when requested to do so. After reading the foregoing, an operator can readily see how much work and difficulty is involved when she fails to comply with the customer's request.

If the calling party makes the request to be notified at the end of a stated period when giving his order, or if the attendant at a pay station says "Attended" when giving her order, the operator will note "t & c" in the "Other" space on the ticket and at the end of conversation will give the time and charge in accordance with the prescribed practice. If the calling party does not wait after conversation for the operator to quote the charge, she will determine it at once, ring him back, and quote the charge.

If the operator will follow all of the prescribed practices for handling a call on which the customer asks to be notified at the end of a stated period, she will please her customer and will avoid extra work for herself and her supervisor.

Traffic Questions

(1) On an "A" board toll call, if a customer asks to be notified at the end of a stated period, how should you reply to his request?

(2) On an "A" board toll call, if the operator failed to notify before the end of conversation when requested to do so, how should the operator proceed?

(3) On an "A" board toll call referred to the supervisor when notification was late, what action should be taken by the supervisor?

(4) Does cut-off precedence on long distance calls apply to restoring connections between operators as well as between telephones?

(5) When an outward operator is advancing a call, if there is a posted delay on an alternate route at her office or if the operator knows or determines that there is a posted delay at an intermediate office on an alternate route to a direct circuit point, should the operator disregard that route?

Answers are presented on page 42

V V

Kahler Urges Women To Become Engineers

A leading mid-west telephone executive called on the nation's engineers not to look down their noses at women in the engineering profession.

William V. Kahler, president of Illinois Bell Telephone Co., hung out a verbal welcome sign to women engineer guests at the Western Society of Engineers convention in Chicago on Sept. 4.

"With far too few engineers being trained today in our technical schools and colleges," said Mr. Kahler, "engineers, even more than any other group of people, have a responsibility to encourage and even recruit young people to take up engineering careers.

"In carrying out this responsibility, engineers should not overlook the potential engineering talent possessed by many young women."

He termed "not realistic" the theory that women have only a limited place in the engineering profession.

V V

"If you went to the bank every working day—five days a week, 52 weeks a year—and deposited $2.04 to the credit of the United States Government, you would just about be paying your proportionate share of the $85,444,000,000 budget on a population basis."—Coatesville (Pa.) *Record*

When We Go To Market

The article on this page is reprinted from the August issue of *Life Line*, employe magazine of the California Water & Telephone Co., San Francisco, Cal. It presents vital information for the education of employes and for use in rate cases.

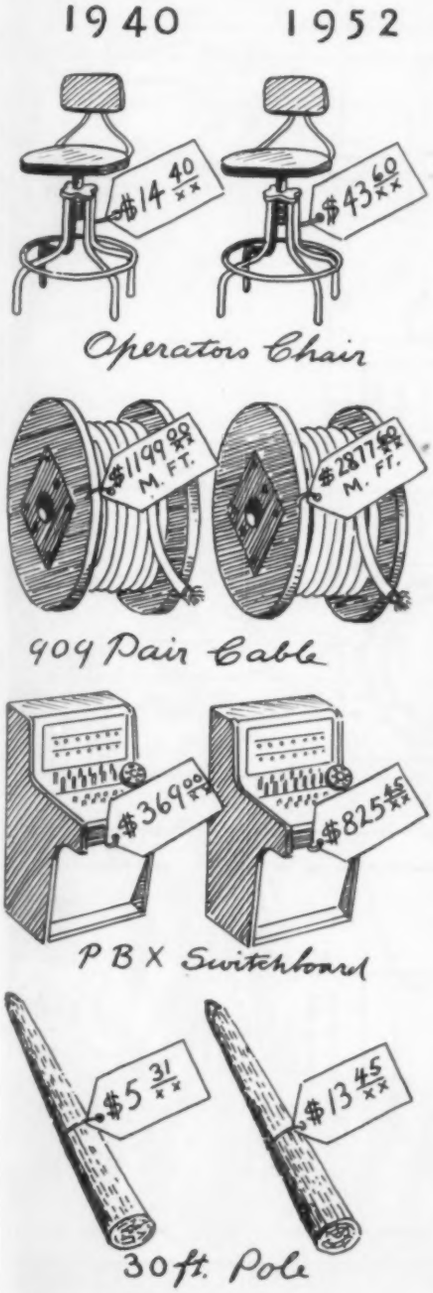
WHEN the California Water & Telephone Co. goes to market for materials it pays higher prices, too. Just like everybody else who goes to market these days. Inflation has hit everything CW&T has to buy, including little things like pencils and rubber bands. In the case of the company's "tools of the trade", price advances have been spectacular. A look at the comparisons illustrated on these pages will show you exactly what has been happening since 1940.

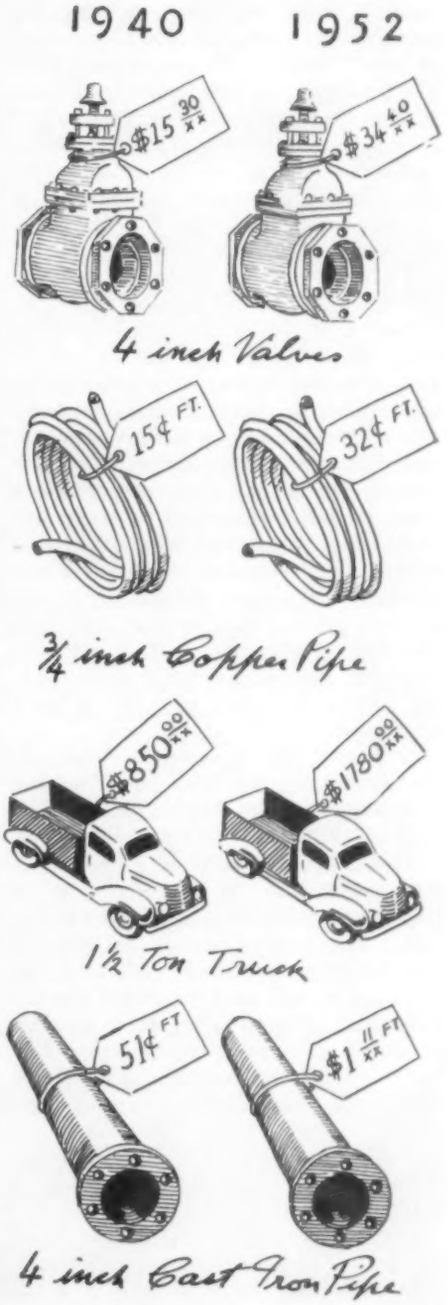
Valves are up 124 per cent; copper pipe 113 per cent; castiron pipe 117 per cent; operators chairs 202 per cent; PBX switchboards 123 per cent; cable 140 per cent telephone poles 153 per cent. Wherever purchasing departments look they find similar situations. And when you think of the great variety of "tools of the trade" needed to keep conversations going over the wires and water flowing through the pipes you realize that the cost of operation has been mounting steadily.

Add to the cost of materials the cost of labor, the cost of taxes, and the cost of money, and you arrive at the total cost of operation. Deduct the cost of operation from the total revenue received from customers and you have the net earnings. Simple arithmetic. But there is a less simple aspect of the situation which we must consider today. Net earnings are not high enough to attract the new capital needed to finance expansion as rapidly as demand for service dictates.

Net earnings are influenced by the rates charged for service and the cost of providing that service. When earnings are too low two things must be done—rates must be raised, which is the final responsibility of the public utilities commission; and the cost of operation must be lowered, which is the responsibility of company personnel. It is obvious that the cost of materials cannot be cut, nor the cost of labor, nor the cost of taxes, nor the cost of money. The only way to cut operating costs is with new ideas, untried methods for doing things faster, better, cheaper. And anyone can create ideas—where there is a need there is always an opportunity for thinkers.

When earnings are satisfactory everybody wins—employes, customers, investors.





MAINTENANCE TESTING EQUIPMENT

By JOHN A. BRACKEN

PART 55. The preceding article in this series appeared in the Aug. 30 issue, p. 24.

A SUPERVISORY type of relay having an inductive and non-inductive winding connected together in parallel, as used in switchboard cord circuits, is shown in *Figs. 1* and *2*.

This relay is connected in series with the battery supply and when a cord is plugged into a station line jack, it is under control of the station telephone.

The capacitors shown in *Fig. 1* separate the two cord circuits insofar as the flow of dc between them is concerned, while the voice currents are permitted to pass with but a minimum of loss. Variation in the current flowing through a carbon type transmitter, due to the action of sound waves impinging upon the diaphragm, produces variations which are in unison with the original frequencies covered by the vibrating range of the human voice. These are known as voice currents.

To maintain an electrical balance, and thus prevent the battery from providing a shunt to the voice currents when the cord pair is in use, an inductance (retardation coil) is inserted in series with the battery supply and tip and ring conductor of each cord which comprises the talking circuit. The battery current finds a ready path through the retardation coils and the relay inductive winding, which offer a comparatively low resistance to the battery current, but a high impedance to the passage of the rapidly varying voice currents originating at the stations. However, the relay non-inductive winding allows the voice currents to pass unopposed.

In *Fig. 2*, the repeating coil accomplishes exactly the same result as the retardation coils and capacitors in *Fig. 1*.

Repeating coils used in switchboard cord circuits, are of a special type of 1-to-1 ratio transformer with four windings. The symbol shown in *Fig. 2*, represents a repeating coil with its windings wound on a doughnut shaped soft iron, or iron alloy core, and so arranged as to keep the two cord circuits completely isolated insofar as the direct flow of voice currents between is concerned. These currents are, however, repeated from one circuit to the other by means of electromagnetic induction.

In view of all this, it is obvious that by the use of capacitators, relay windings, and repeating coils it is possible to separate voice currents from a circuit containing direct currents, or to remove direct currents and leave the voice currents. Although the supervisory relay is placed in series with the talking circuit in a common battery manual switchboard as shown in *Figs. 1* and *2*, in the operation of certain types of dial telephone systems, it is the accepted practice to connect a relay directly across the talking circuit where it functions as a retardation coil to feed battery to the telephone line circuit.

This relay may also be used to provide supervision and operate other equipment. Such an arrangement is illustrated in *Fig. 3*. To facilitate an understanding of the transmission principle involved, only the talking path of a particular type of dial system con-

(Please turn to page 44)

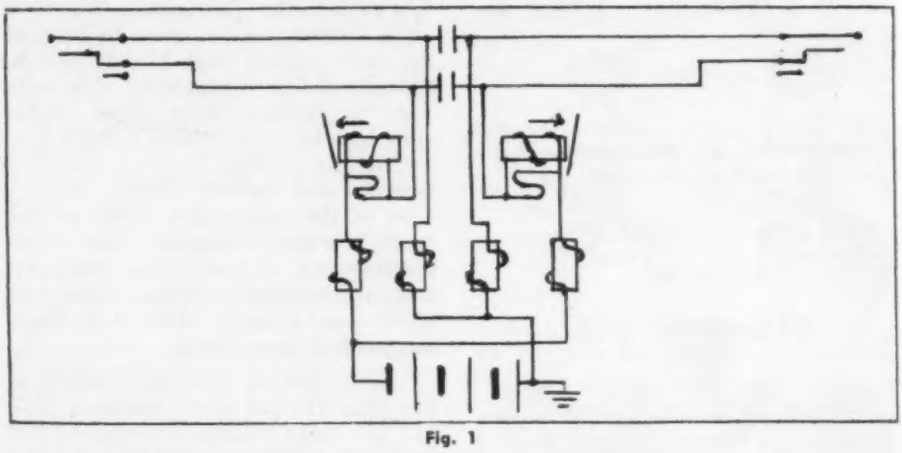


Fig. 1

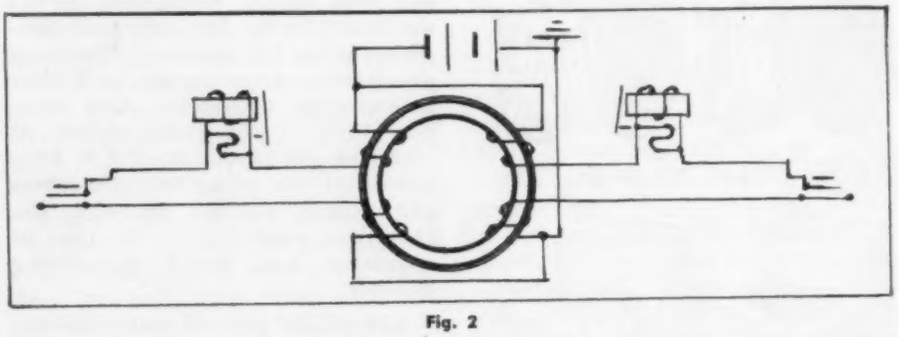


Fig. 2

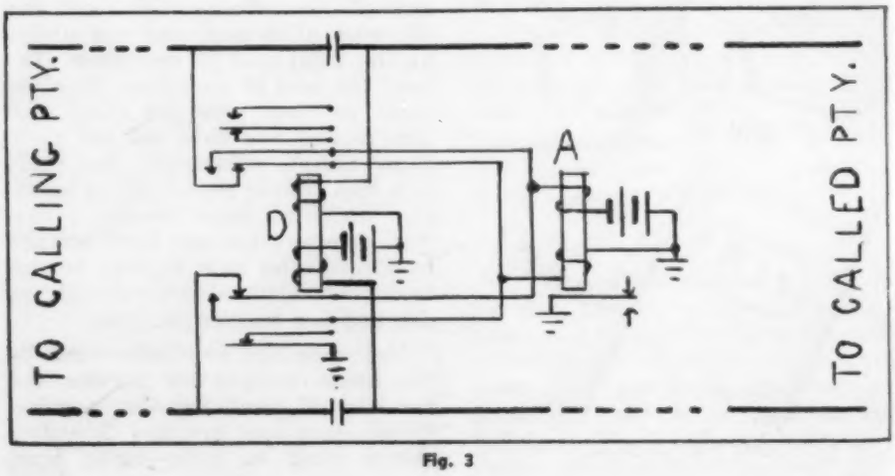
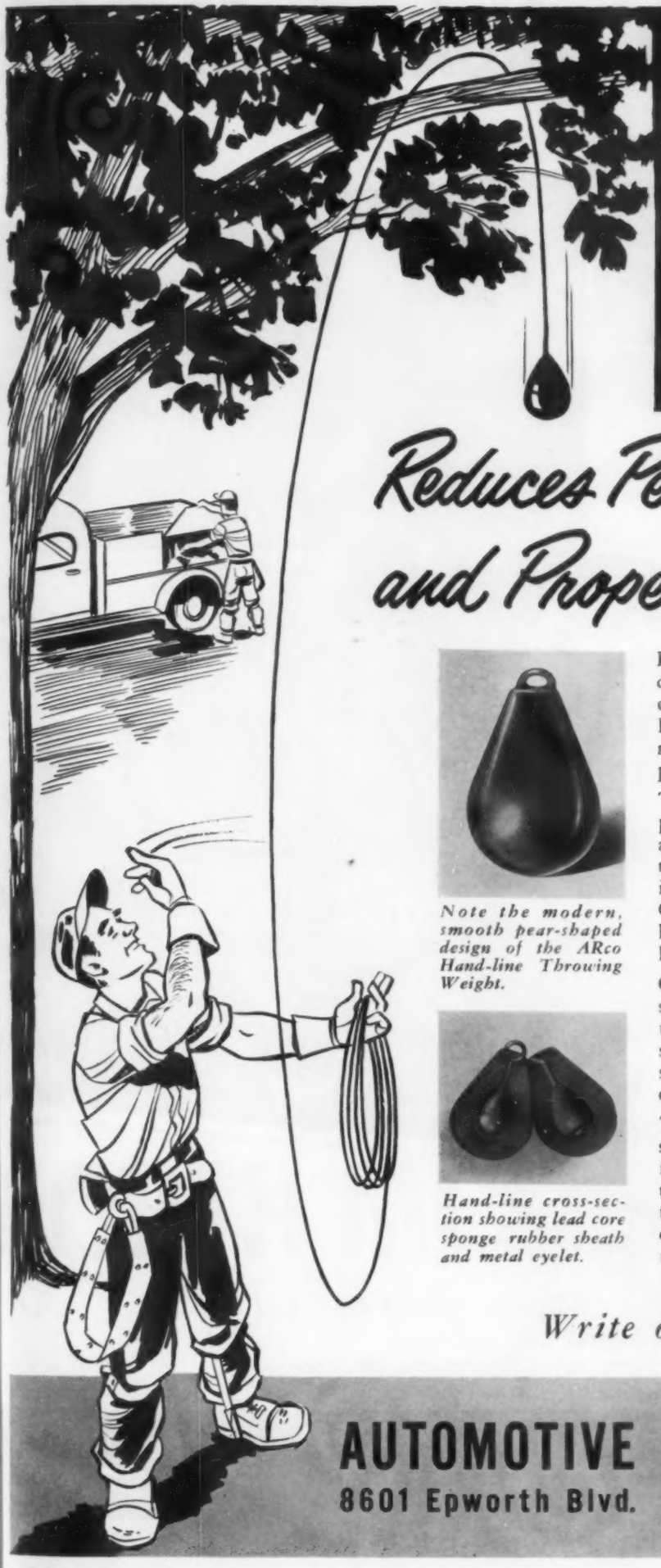


Fig. 3



ARco
SPONGE RUBBER COVERED HAND-LINE THROWING WEIGHT

Reduces Personal Injury and Property Damage!

Note the modern, smooth pear-shaped design of the ARco Hand-line Throwing Weight.

Hand-line cross-section showing lead core sponge rubber sheath and metal eyelet.

Here is a new Hand-line Throwing Weight designed and manufactured by safety minded engineers for field use by Telephone and Power linesmen. Safety tested and proven, it reduces the possibility of property damage or personal injury to an absolute minimum.

This modern, pear-shaped weight is heavily padded and insulated, ready for easy and quick attachment to any type hand-line. It has just the right size, shape and heft for easy throwing and threading through brush and trees. One popular feature of its design is that when hand-line is properly tied and taped over eyelet, weight will not catch in retrieving.

Consisting of a lead core sheathed in a thick, sponge rubber shell, the assembled weight is then heavily coated with a smooth, tough, resilient, black rubber outer lining. The dimensions are 4½ inches long by 3 inches in diameter at widest point. Total weight 13½ ounces.

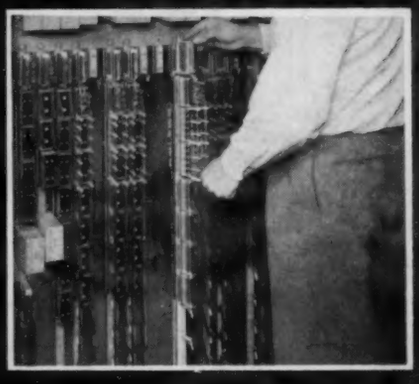
The ARco Hand-line Throwing Weight is sturdily constructed for long service, compact for easy storage and requires no care or maintenance since it is not affected by water, moisture, corrosives, hot or cold temperatures. Best of all, it is economically priced so every linesman can carry one.

Write or Wire for Volume Prices

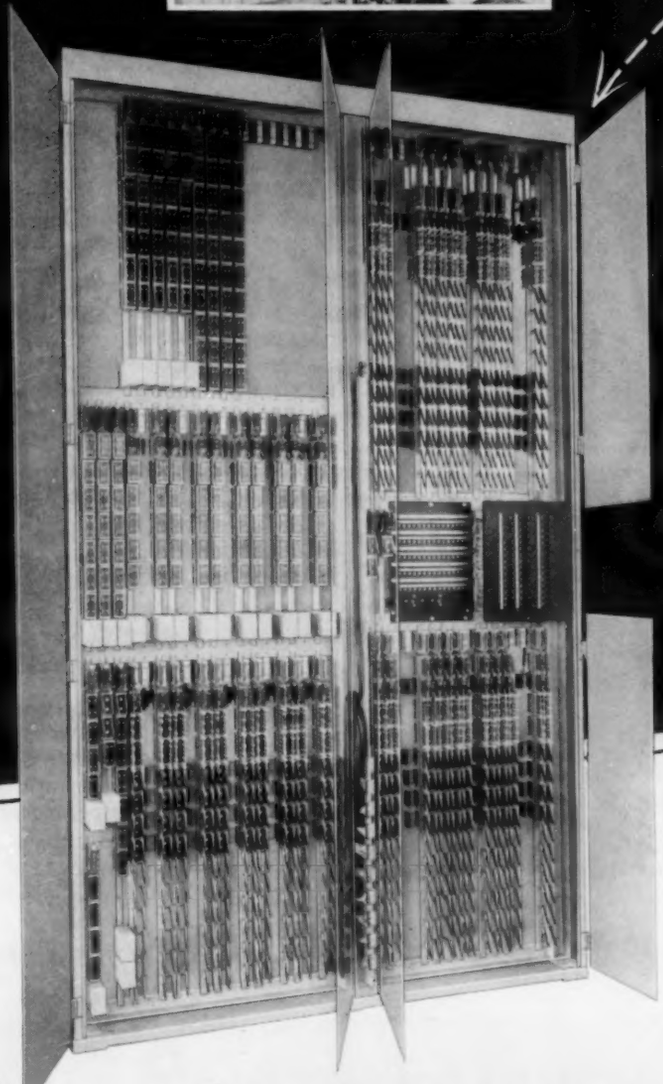
AUTOMOTIVE RUBBER CO., Inc.
8601 Epworth Blvd. Detroit 4, Michigan

Quick definition

1 Since this North MCXR switchboard was installed, with open positions for expansion, need has arisen for additional lines. A local maintenance man quickly adds complete factory-wired 10-line relay strips by slipping them into position, like this, in the "future" positions, here . . .



2 If, as usually is the case, the number of lines added makes additional links advisable, the same simple procedure follows. Complete pre-wired strips are furnished which are easily snapped into position . . . here; then are connected to the rear multiples with a simple wedge-lock which maintains a constant pressure contact.



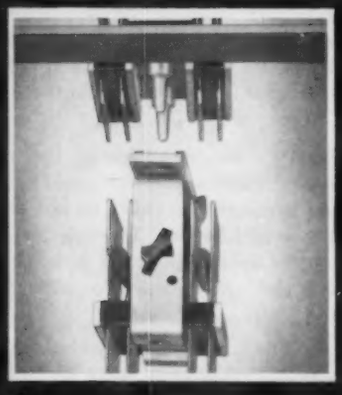
have you ever seen a full description of all MCXR advantages? Why not write for bulletin SF 263, NOW, or call a North field engineer for a non-obligation survey?

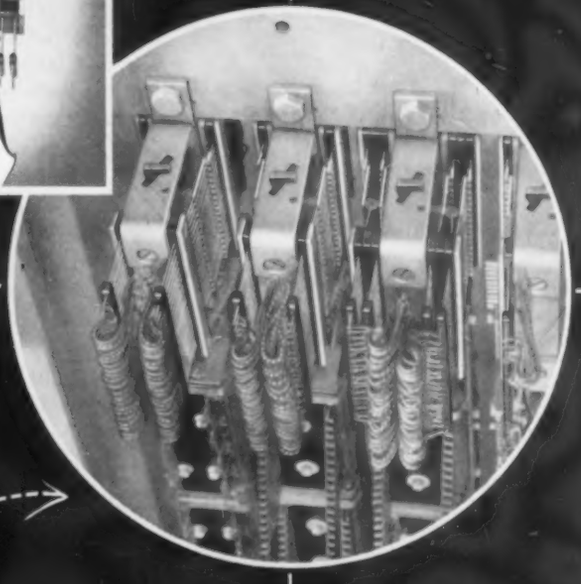
?

NORTH

of "Expandability"

NORTH *style*





3 The line and link strips are jack-ended with North's exclusive position-and-lock jacks. Each strip comes into locking position like this . . . then, with a simple lever action, is securely locked with every lead connected through the precious metal contacts of the jack under 125 grams pressure . . . like this . . .

One multiple relay is added to each of the original links for each 10-line strip installed in this manner.

Each quickly added strip remains solidly in position yet is always ready for quick demounting if the need for inspection or transfer of a strip should arise . . .

THAT IS EXPANDABILITY

NORTH MCXR all-relay

AUTOMATIC SWITCHBOARDS

are as expandable as your needs

THE NORTH ELECTRIC MANUFACTURING COMPANY

Originators of ***ALL RELAY*** *Systems of Automatic Switching*

601 South Market Street, Galion, Ohio, U.S.A.

PLANT MAN'S QUIZ

Q. Please explain how fine gauge cables may be used in lieu of fuses for protection purposes.

A. It is considered an approved practice to use short lengths of 24-gauge, or smaller, cables for the protection of underground or aerial cables terminating at a central office which are extended by aerial cable or lines. Such an arrangement has proved more economical than the installation of a fuse-type terminal. The fine gauge cable insert becomes the weak or fusing point in the event of a lightning or power overload.

The length of fusing cable should never be less than six feet.

• • •

Q. How often should cables be bonded together when they extend through several manholes in parallel conduits?

A. As a general rule, all cables should be bonded together in all manholes. No. 14 tinned-copper bonding ribbon, ⅜ of an inch wide, is considered desirable for use in this bonding procedure.

• • •

Q. Will it be possible for us to obtain a switching key that can be used to connect a telephone to any of three different lines?

A. Keys of this type are available and may be obtained from your telephone supply house.

When the key lever is in the center position, the inner contacts are made and one line can be connected to the switching telephone. The key can then be operated in either direction to a locking position to connect either of the other two lines.

• • •

Q. Please advise the maximum span length that can be successfully used on open wire rural lines.

A. Numerous variables must be evaluated before the economical span length can be determined for use in any particular locality.

With the use of the new high-tensile strength wire, span lengths up to 600 feet are possible and have been employed rather extensively and successfully in many sections of the country. However, it may be that in your particular locality, because of weather conditions or the nature of the terrain, shorter spans would prove more economical.

It is suggested that you first consider where certain poles such as at corners, road crossings, dead-ends, etc., must be located and then determine what maximum span length best meets your specific requirements at the lowest cost. The length, class and type of pole must also receive careful consideration in determining the most economical span length for rural line use.

• • •

Q. What method should be employed to hold the ends of strand on a guy in such a way as to avoid the cumbersome and time consuming wire serve?

A. Small, inexpensive aluminum clips that can be used for this purpose are now available. These clips are merely inserted between the two strands and the tabs are bent around the wires.

This task is performed in much less time than the wire serve and the job is neater in appearance.

Two sizes of these clips are currently available, the smaller takes strand ¼ inch and $\frac{5}{16}$ inch, and the larger ⅜ inch and $\frac{7}{16}$ inch sizes.

• • •

Q. Would it be possible to operate a dial central office installation without a ground connection?

A. While a central office could be operated without a ground connection, it would be necessary for the battery to be grounded in order to provide the necessary protection against lightning, stray currents and electrolysis. A ground connection is also necessary for the operation of ground connected ringers at customers' stations.

To insure the proper operation of all special circuits and others requiring grounds, every effort should be made to provide both a good reliable central office ground and a satisfactory connection to it of all equipment requiring ground connection.

• • •

Q. In the planning of an underground cable distribution system, we are debating whether or not to feed out from the central office in the main conduit run with two 600-pair cables or one 1,200-pair. Please tell us which method, in your opinion, would prove the more desirable.

A. Perhaps there are good reasons for both arrangements and these should be considered carefully.

If there is a possibility that at any future period you will be crowded for duct space, then perhaps the 1,200-pair arrangement should be used, since it requires only one duct. On the other hand, you will have better service insurance with two cables, for in the event of trouble both will probably not fail at the same time and only half of your pairs will be in trouble. With the 1,200-pair, a total failure would place all lines out of service.

Consideration also should be given to the splicing and manhole racking arrangement of the two 600-pair and the single 1,200-pair cables. While in the average case either arrangement will be found satisfactory, perhaps the 1,200-pair will prove the more desirable as a long-haul arrangement. This will prove especially true if you enjoy considerable growth in the future.

• • •

Q. We are considering the use of a battery eliminator to avoid a battery loop through the cable to power a small PBX switchboard. If such an arrangement is used, will it be possible to utilize a dry cell battery to carry the PBX over all power failures?

A. Yes, and a battery eliminator may be equipped with a relay to cut the dry cell battery onto the system during the failure of the commercial power. When the power is restored, the relay switches the board back to the battery eliminator. This arrangement proves satisfactory on small PBX systems when the power failures are not frequent or of long duration. In this case, service life is practically equal to shelf life for the dry cell battery.

If power failures are frequent and of long duration, perhaps a better and more economical arrangement would be to install a small storage battery at the PBX and float it from a suitable rectifier, if cable pairs are not available to connect a battery loop from the central office.

V V

Radio-Telephone Service to Lebanon Sept. 1

Radio-telephone service to Lebanon, on the eastern seaboard of the Mediterranean, was inaugurated on Sept. 1 by the Long Lines Department of the American Telephone & Telegraph Co.

Overseas operators in New York began placing calls to the distant republic via Paris, France after negotiations were completed with the telephone officials of the Lebanese and French administrations.

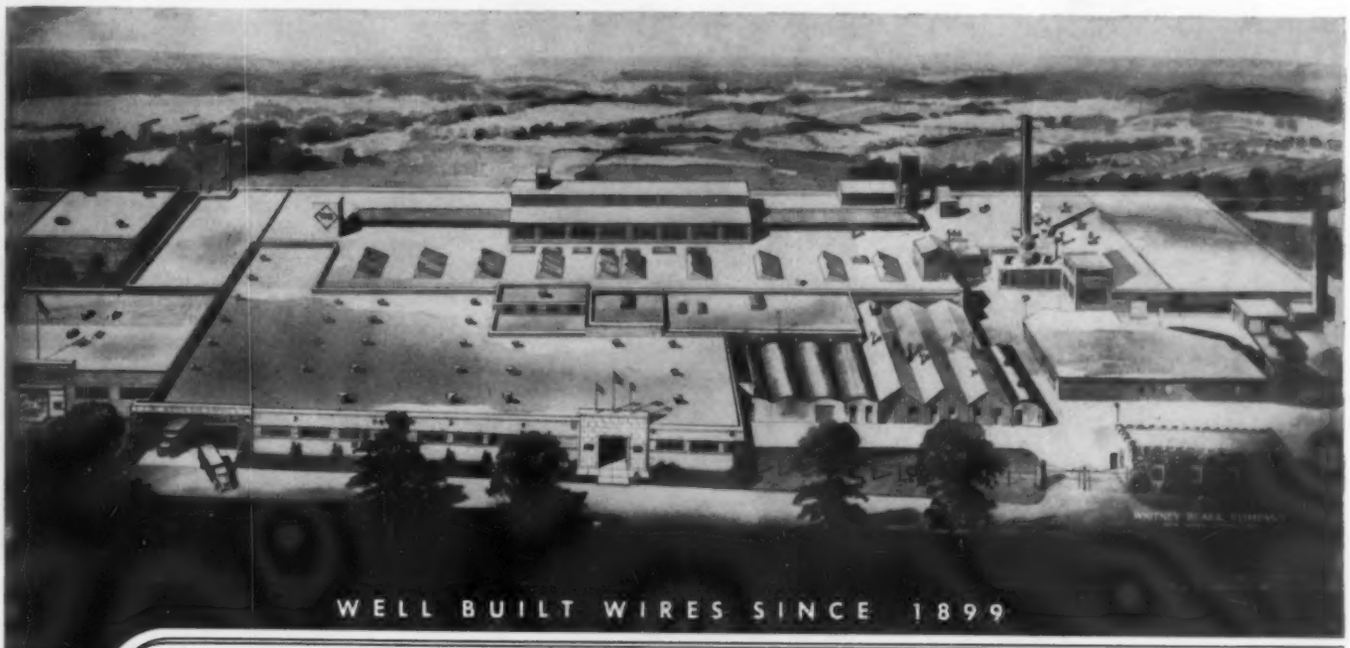
The rate (excluding tax) for a three-minute call between Lebanon and any point in the United States is $15.

V V

» It has been said that it is twice as hard to crush a half-truth as a whole lie.

Testing...

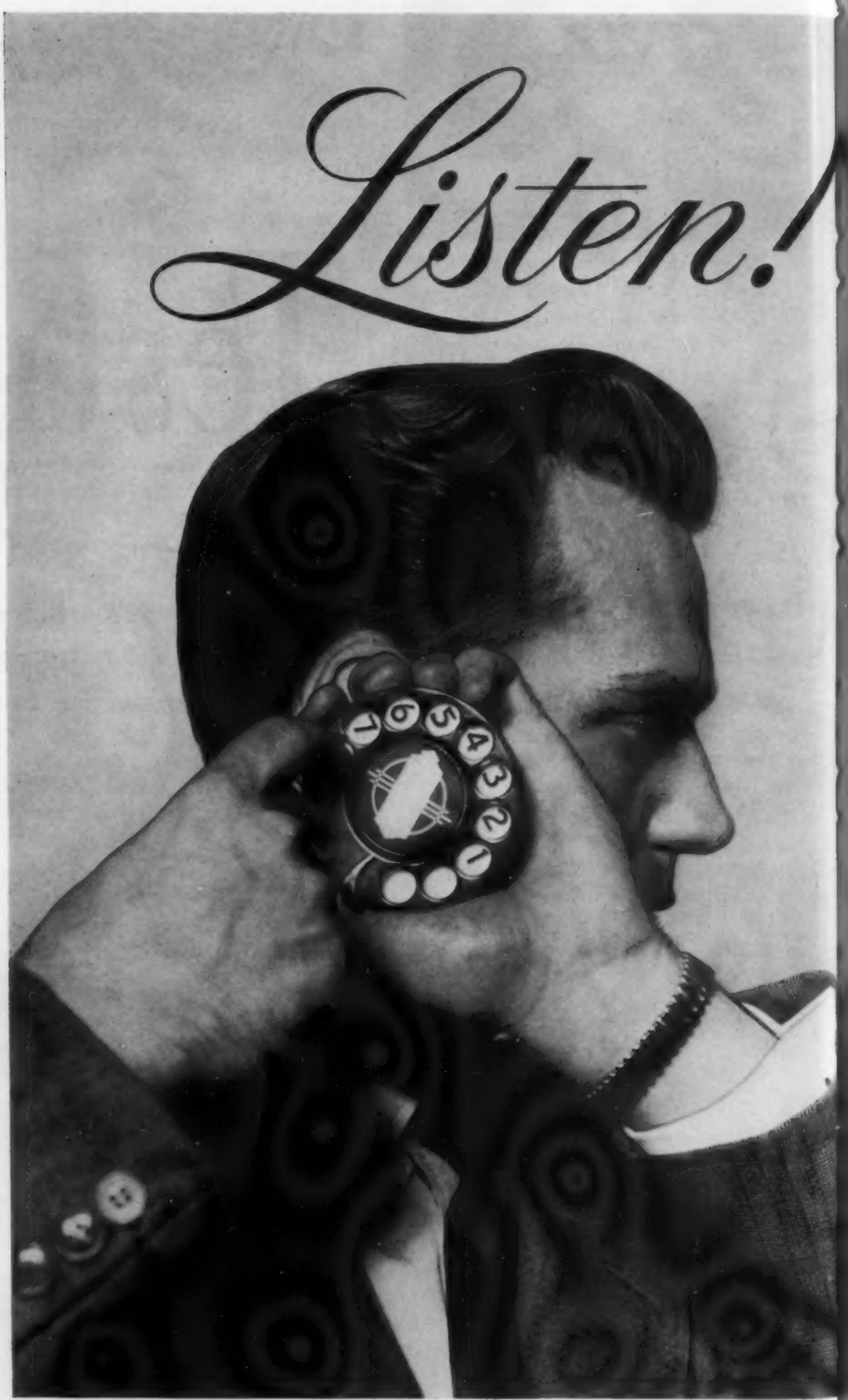
The exacting in-process and final tests performed at Whitney Blake on the most modern equipment by highly trained technicians, assure The Independent Telephone Industry of the best in telephone wire.



WELL BUILT WIRES SINCE 1899

WHITNEY BLAKE COMPANY

NEW HAVEN 14, CONNECTICUT



WHY does Type 51 out-perform every other dial?
Get the "inside" story
—the facts and features—clearly illustrated.
Write for circular 1714 today!

. . AND YOU'LL BUY

AUTOMATIC'S NEW TYPE 51
"The Silent Dial"

Type 51 is the *quietest dial in the world!*

Hold it close to your ear. Then listen!
. . . while you turn the fingerplate from "O" and release it.
You'll feel its fluid smoothness,
and you'll hear no more than the faintest whisper of sound.

What does this quietest-in-the-world,
smoothest-ever operation mean to *you?*
Just this: it means that Type 51's
the most durable, trouble-free, subscriber-satisfying dial
you can buy!
Its fine design, expert manufacture,
and many new features
—including a new pawl silencer, new gear contours,
and new mirror-finished working parts—
make it far superior to any other dial.

We've proved Type 51 through 3,500,000 operations
—several lifetimes of hard use—
and we invite you to test it for yourself.
Order a sample today.
Listen! . . . and you'll buy Type 51.

AUTOMATIC ELECTRIC

Originators and Developers of the Strowger Step-by-Step "Director" for Register-Sender-Translator Operation . . . Machine Switching Automatic Dial Systems
Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

Distributors in U. S. and Possessions: Automatic Electric Sales Corporation
Export Distributors: International Automatic Electric Corporation
1033 West Van Buren Street, Chicago 7, U. S. A.

"ONE-ONE-TWO"

Odds are 60,000-to-1 when you dial "Information" in Tampa —but Linedex helps handle 10,000 daily requests speedily.

By J. HARTWELL JONES*

Two compartment drawers speed reference to contract cards. Cards removed on left side show how Adjust-A-Vider keeps others upright, saves scuffing.

Six "Information" operators in staggered positions are served by three pairs of two-tier Linedex Rotary Stands; handle 10,000 calls daily.

PENINSULAR Telephone Co., with headquarters at Tampa, serves an approximate 75-mile radius on Florida's thriving west coast. It enjoys the distinction of being the second largest telephone utility in the entire United States not controlled by a holding company.

This year, Peninsular observes its 50th anniversary with more than 158,000 telephones in service—a 100 per cent increase since 1944. Some 60,000 of these telephones are concentrated within the Tampa exchange district, thus posing all of the control problems of any major metropolitan city.

In the telephone industry, there are —among many others—two continuous daily problems directly affecting public goodwill: The way in which calls to "Information" are handled, and the speed with which number changes are conveyed to patrons who have dialed the old number.

Despite the usual campaign to encourage telephone users to consult the directory instead of calling "Information," Peninsular finds that—as elsewhere throughout the country—Tampans prefer the easier technique of dialing "112." The daily total of "Information" calls—most of them really unnecessary—is about 10,000.

Yet we handle this tremendous number of inquiries with a maximum of six "Information" operators at peak periods, and something *less than 10 seconds* is the average time for handling a normal inquiry!

The reason-why is very simple. After studying all of the date-locating methods used in business, we installed Linedex Rotary Stands more than 10 years ago. They were efficient then—they have kept up with our more-than-double growth. And though we constantly examine new developments for superior techniques, we have found no other method which promises as much speed and accuracy.

The six "Information" operator positions are staggered on two sides of a table on which are mounted six two-tiered units. Each complete listing for the Tampa exchange requires two two-tiered units, and the arrangement is such that each operator has convenient access to *two* sets of the rotary indexes. Thus if one segment is in use by another operator, the alternate Linedex may be consulted.

Large visible tabs and free-swinging rotary action enable the operator to select the proper panel with a minimum of arm motion and no other physical movement. She does not have to get up nor turn pages to locate the

*Mr. Jones is director of advertising and publicity for the Peninsular Telephone Co., Tampa, Fla.

Announcing

55th ANNUAL CONVENTION

CONRAD HILTON HOTEL, CHICAGO

OCTOBER 13-14-15

(Monday, Tuesday, Wednesday—Noon)

A Meeting of Vital Importance for all Independent Telephone People

★

Conferences

Plant — Traffic — Commercial Accounting · Answers to Tomorrow's Questions

General Sessions

Topics of Outstanding Importance · Dynamic— Entertaining Speakers

PIONEERS MEETING AND ENTERTAINMENT

Manufacturers Exhibits

Displaying the Latest in Technology and Design

U.S.I.T.A. *Annual Banquet*

and Entertainment

(Tuesday Evening — October 14)

ALL INDEPENDENT OPERATING TELEPHONE PEOPLE ARE CORDIALLY INVITED TO ATTEND WHETHER OR NOT THEIR COMPANIES ARE MEMBERS OF THE ASSOCIATION (Attendance of Manufacturers and Suppliers is Limited to those Holding Membership in the Association.)

UNITED STATES INDEPENDENT TELEPHONE ASSOCIATION

411-17 MUNSEY BUILDING • WASHINGTON, D. C.

wanted number. The typewritten listings are highly legible.

Linedex inserts—which are of a wood-fiber construction for long life—are typed in quadruplicate from service orders. Each insert contains name of subscriber, address, and telephone number. After checking, three go to the "Information" Linedex, and the fourth is posted in a separate Linedex for company use, arranged by telephone number.

The normal indexing is on buff-colored Linedex inserts. When a number, at the subscriber's request, is unlisted and unpublished, it is on a blue Linedex—signaling the "Information" operator that she may not disclose the number.

Salmon Linedex indicates a coinbox telephone. When these installations are of the non-guaranteed-payment type, a colored signal is slipped over the Linedex insert. This precaution is necessary to avoid possible revenue loss on those incoming Collect toll calls which are checked through the "Information" operator.

Another colored signal indicates temporary disconnection. If a telephone is permanently disconnected, or the patron has moved, a rubber stamp is applied to the Linedex insert so the "Information" can give proper data. The rubber-stamped inserts remain in the Linedex until the next Directory is distributed.

When a Tampan dials "Information" he seeks a literal needle in a haystack—one number out of 60,000. But thanks to Linedex, he gets his answer in a small fraction of a minute!

Several Linedex panels are devoted to number change information, unavoidable in any telephone operation. When a patron dials a number that has been changed, the call is automatically diverted to an "Information" operator—or, at peak periods, to a special operator who handles these calls only.

The Linedex inserts for changes are, of course, arranged in rotation of the old number. Almost as quickly as the patron tells the number he has called, the operator is able to give him the new number. These number-change panels are eliminated after each new Directory issue.

Tampa—and the territory Peninsular serves—has had dial telephones longer than most other parts of the country. Our first dial exchange went into service in April, 1915—and Tampa became the first city of its size to have complete dial service. In 1948 we checked up another "first"—the first large telephone system to be 100 per cent dial operated. Even today, hardly more than 60 per cent of the entire country has the advantage of local dial telephones.

In our dial pioneering—we call it our "Dial Decade"—Peninsular commenced inter-exchange toll dialing in the early '20s. This is a development that greatly increases speed of long distance service to subscribers, and has only within the past several years been adopted by other companies on a national basis.

Toll calls naturally require the services of an operator in placement, since a toll ticket must be made out for computation of charges and proper billing. After billing, all toll tickets are filed by billing month and numerically by telephone number for possible future reference.

With the exception of special restrictions sometimes caused by senatorial investigations, we normally keep toll tickets for approximately one year. They are conveniently filed in special seven-drawer Aristocrat files, with six front-to-back compartments in each drawer, thus facilitating almost instant reference.

The same type of seven-drawer Aristocrat files, with two compartments in each drawer, is used for our service contract files. The cards, containing the subscriber's original agreement and other necessary information, are arranged by telephone number for our convenience. Reference to these files is constant for many reasons—yet individual cards are quickly located and do not become damaged through handling largely because of the ingenious Adjust-A-Vider metal inserts in every compartment.

These inserts act as intermediate follow-blocks, keeping the cards upright and preventing scuffing even when large groups are removed for reference.

The details I have described are perhaps small in themselves—but they help to speed the countless small transactions that make up the business of a telephone company. When you are on the other end of the telephone, you don't care how many subscribers we have, how old we are, how much we have grown, or what technical innovations we boast. All *you* want is to get your information or transact your business with us in the least possible time.

And that is our objective, too—with better telephone equipment and with the most practical office and record-keeping equipment.

Constructio

With the Doubl
and America

revenue-saving
in long-lasting po
is yours when you

DIAMOND C POLES

Now better than ever,
made in Colfax Lumber
Creosoting Co.'s NEW pla

All Diamond C poles are ca
selected from trees growing i
heart of the famous Southern
Pine belt. Each pole is graded a
ing to physical properties desire
pressure-treated with 8 lbs. (m
you want it!) of grade No. 1 cr
oil, per cubic foot of wood. A ne
modern treating plant promises
than-ever quality and faster deli

Have the lowest possible annua
cost. Specify . . .

DIAMOND C

STROMBERG Telephone CARLSON

TELEPHONES, SWITCHBOARDS • SO

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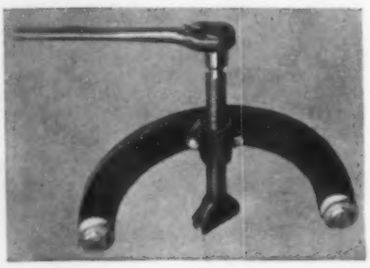
ratchet handle slack puller

made by Cable Spinning Equipment Co.



The same dependable Slack Puller, but with a ratchet added. This type of handle enables the operator to pull slack with the Little Giant Slack Puller, requiring even less effort than would be needed with the conventional model.

The correct tool for those who use the Puller day after day.

a product of actual field study

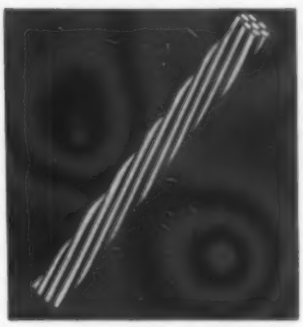
The Reliable B27 Protected Cable Terminal has resulted from basically sound engineering, supported by actual field experience. It places all connections within convenient reach of the lineman without necessity of removing fuses or reaching around the terminal—also a decided advantage in inspecting.

Detachable mounting bracket permits one-man installation. Ground connection is made directly to ground strip, reducing possibility of high resistance ground. Reliable Self-cleaning Sawtooth Discharge Blocks are standard—insuring dissipation of static discharges without danger of unnecessarily grounding the line.

RELIABLE
B27 CABLE TERMINAL

crapo galvanized strand

Guy and Messenger



LONG LIFE — LOW COST

The superior tensile properties inherent in steel are used to full advantage in *Crapo* Galvanized Strand. The tightly adherent zinc coating applied by the *Crapo* Galvanizing Process provides lasting protection against corrosion, prolongs the life of the strand. Controlled ductility makes *Crapo* Strand easy to work and to serve. Low first cost and low yearly cost result in important economies.

The all-round dependability of *Crapo* Galvanized Steel Strand is being demonstrated constantly by its outstanding performance in service. There is a size and grade for all practical needs.

Distributed by STROMBERG-CARLSON

ROCHESTER 3, NEW YORK

Courts and Commissions

N. C. Company Plans $1,000,000 Bond Issue

The Hickory Telephone Co. on Sept. 8 asked the North Carolina Utilities Commission for permission to issue $1,000,000 worth of bonds, the proceeds of which would be used for expanding its facilities, retiring existing bonds, repaying short term bank loans and increasing its working capital.

In its petition, the company said it plans to use $585,311 of the money in the expansion of its facilities, including the expenditures of $253,626 at Hickory, $35,191 at Hildebran, $124,503 at Granite Falls and $171,990 at Valdese, and that when the work is completed the company expects to be able to add between 1,800 and 2,000 new customers.

Also of the total, $175,000 would be used to retire existing bonds, $135,000 to repay short term bank loans, and $62,718.91 to increase its working capital.

The bonds would bear 4½ per cent interest and would be payable Sept. 30, 1977. The company said the Jefferson Standard Life Insurance Co., Greensboro, N. C., will take $750,000 of the bond issue immediately, and the remaining $250,000 when the expansion program is completed.

V V

Approves $10,000,000 Bond Issue, for Associated, Ltd.

The California Public Utilities Commission in a preliminary decision on Sept. 4 authorized the Associated Telephone Co., Ltd., Santa Monica., to issue and sell $10,000,000 in first mortgage bonds to pay off current indebtedness and care for future expansion.

The bonds will be Series H, due Oct. 1, 1982.

The company was directed to invite sealed bids for the purchase of the bonds, to be done before Sept. 22. The commission will act on final authorization after that date.

V V

Weatherholt Appointed to Indiana Commission

Wallace Weatherholt, Indianapolis, has been appointed a member of the Indiana Public Service Commission. He took office on Sept. 1 to succeed Crawford F. Parker, New Castle, who resigned.

Mr. Weatherholt at the time of his appointment was deputy treasurer of

This new issue of Common Stock is being sold to the general public by a group of investment bankers, including the undersigned. The offering is made only by means of the official Prospectus.

New Issue

350,000 Shares

General Telephone Corporation

Common Stock

(Par Value $20 per Share)

Price $33.00 per Share

You are invited to ask for a Prospectus describing these shares and the Company's business. Any underwriter qualified to do business in this state will be glad to give you a copy

Paine, Webber, Jackson & Curtis — Stone & Webster Securities Corporation

Mitchum, Tully & Co.

Blyth & Co., Inc. — Kidder, Peabody & Co.

Hemphill, Noyes, Graham, Parsons & Co. — Hornblower & Weeks — W. C. Langley & Co.

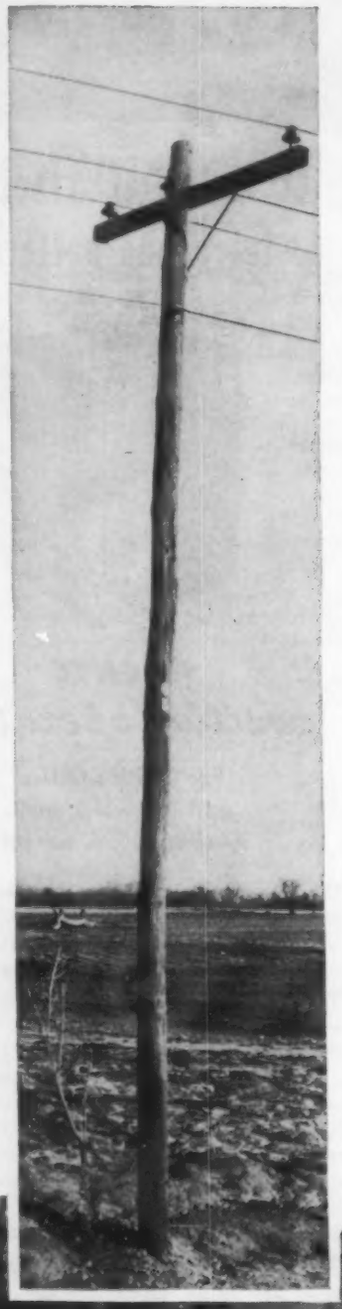
Merrill Lynch, Pierce, Fenner & Beane — White, Weld & Co. — Dean Witter & Co.

Robert W. Baird & Co. Incorporated — Central Republic Company (Incorporated) — Lee Higginson Corporation

Laurence M. Marks & Co. — F. S. Moseley & Co. — Shields & Company — The Ohio Company

September 9, 1952.

Here's Proof of Performance



A MOVE, A FLOOD AND 37 YEARS OF SERVICE HAVEN'T AFFECTED THESE POLES —THEY'RE PROTECTED BY

CREOSOTE OIL

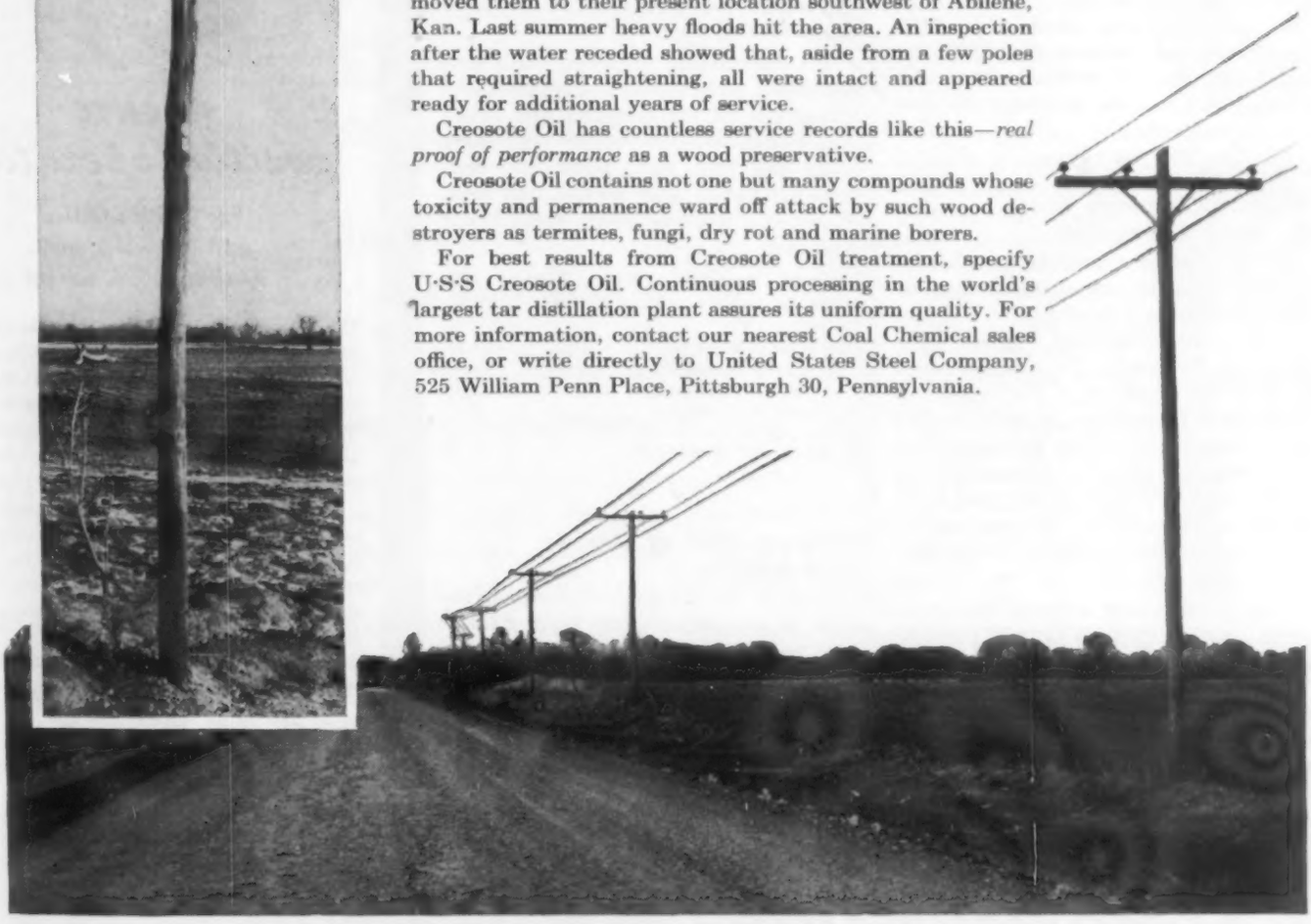
HERE'S ANOTHER EXAMPLE of the effectiveness of Creosote Oil as a wood preservative. In 1915 these southern pine poles were treated with Creosote Oil and installed near Gypsum, Kansas.

Fifteen years later, the owner, United Power & Light Corporation (now The Kansas Power and Light Company), moved them to their present location southwest of Abilene, Kan. Last summer heavy floods hit the area. An inspection after the water receded showed that, aside from a few poles that required straightening, all were intact and appeared ready for additional years of service.

Creosote Oil has countless service records like this—*real proof of performance* as a wood preservative.

Creosote Oil contains not one but many compounds whose toxicity and permanence ward off attack by such wood destroyers as termites, fungi, dry rot and marine borers.

For best results from Creosote Oil treatment, specify U·S·S Creosote Oil. Continuous processing in the world's largest tar distillation plant assures its uniform quality. For more information, contact our nearest Coal Chemical sales office, or write directly to United States Steel Company, 525 William Penn Place, Pittsburgh 30, Pennsylvania.



U·S·S CREOSOTE OIL

UNITED STATES STEEL

Marion County and had served as deputy state treasurer from 1941 to 1949 and as state securities commissioner in 1927 and 1928. Born in Tobinsport in 1887 he still maintains a residence at Tell City, but lives in Indianapolis. His appointment will run until July 11, 1955.

V V

Carolina T&T Building New Exchange in North Carolina

The Carolina Telephone & Telegraph Co., Tarboro, asked the North Carolina Utilities Commission Sept. 9 for authority to serve the Snead's Ferry area with a local exchange.

Work on the exchange is under way. At present, Snead's Ferry is served by multi-party lines from Jacksonville.

The company asked approval of a new rate schedule to become effective when the exchange is opened. It is estimated that it will have 40 customers.

Proposed monthly rates are: Business, $7.00 for one-party service; $5.50 for four-party service; and $4.50 for multi-party service. Residence: $2.75 for four-party service and $2.75 for rural multi-party service. One-party service will not be available to residential subscribers.

V V

Focusses Employe Eyes On Rate Necessities

After waiting nearly 10 months for a decision in its rate increase case before the Rhode Island Public Utilities Administration, the New England Telephone & Telegraph Co. has explained to its 3,400 employes in that state the need for a favorable and early finding by the commission. In company files are now the names, addresses and requests of 17,300 individuals and businesses in the state who are waiting for telephone service—either a new installation or a regrade in service.

"To provide this service," the company says, "it must invest several millions of new capital in the state. This would be good for everybody—more employment in the industry and in others, more tax revenues for the state, and more service for those wanting and needing it. The engineering for some of this work has been completed and the company wants to get going on the rest."

Listed are nine major projects including new buildings, additions to offices, installation of dial equipment and new cables, and confidential defense projects mentioned as such. Every telephone office in the state would share in the program. Some projects are four or five years away, but should be planned now.

The company points out that two or three cents a day added to customers' bills will attract this capital into Rhode Island. Every item in the company's construction program for 1953 and 1954 is being reviewed. The necessary manpower and materials can be obtained. In closing the company says: "We hope Rhode Island's answer to one of her major industries will be, 'We'd like the telephone company to succeed and grow in Rhode Island.'"

V V

Nebraska Company's Temporary Rates Made Permanent

Temporary rates prescribed for the Martel (Neb.) Telephone Co. by the Nebraska Railway Commission on May 16 (TELEPHONY, June 14, p. 31) were made permanent on Aug. 23.

In its order of May 16 the commission authorized an increase of 50 cents per month on all classes of service. The company had asked for 25 cents. However, the increase was contingent on the company's improving its facilities and service.

The commission inspected the plant, equipment and records and investigated the service of the company and found that requirements of its temporary order had been met. Plant had been rehabilitated and service had been improved. Records were being kept properly.

Gross monthly rates (25-cent discount included) are as follows:

One-party business	$3.50
Two-party business	3.00
One-party residence	3.00
Two-party residence	2.75
Multi-party business	3.00
Multi-party residence	2.75

V V

Postpone C&P of Virginia Rate Hearing

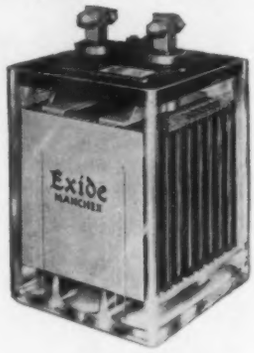
Virginia Corporation Commission on Sept. 9 postponed until Sept. 24 the final hearing on higher revenues proposed by the Chesapeake & Potomac Telephone Co. of Virginia (TELEPHONY, Feb. 23, p. 28).

The hearing, which began last January, had been scheduled to be concluded on Sept. 19.

Commission Counsel N. S. Elliott said the continuance was requested by Morton L. Wallerstein, counsel for the Virginia League of Municipalities and the Virginia League of Counties, which are objecting to the company's request for $5,333,000 additional gross revenue annually.

Wallerstein won a recess in the hearing from Sept. 2 to Sept. 19 on the

(Please turn to page 40)

Construction
With the Doubl
and America
Exide-Manchex
telephone batteries


assure
positive operatio
For Central Office
and Private Branch
Exchange Equipment
This is proven daily in exchanges of
size . . . for 60 years Exide Batteries have
serving the Telephone Industry . . . the
chester positive plate with its exclusive
type construction provides exceptionally
life . . . latest developments on molded
jars permit compact space saving instal
. . . heavy terminal posts with copper
provide extra conductivity for sustained
age at high discharge rates . . . slotted
separators, are impervious to chemical
electrical reactions . . . plastic spacers
plate alignment . . . for assured dependa
long life and low-cost maintenance use
Manchex.
The Electric Storage Battery
Philadelphia, Pa.
1888 . . . Dependable Batteries
for 64 Years . . .
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Telephone
CARLSON
TELEPHONES, SWITCHBOARDS • SO

aterials and Supplies . . .

uarantee of Stromberg-Carlson ading Manufacturers . . .

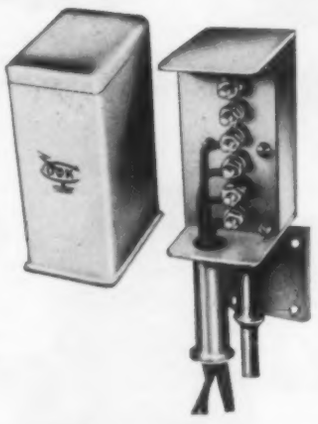
for shorter drops . . . less bracket lines

cook 3-pair XB terminal

An addition to the well-known XB family of unprotected terminals, this development provides far better, more economical means of subscriber distribution out of rural cable.

The 3-pair XB Terminal was especially designed to reduce to a minimum all factors that would cause high resistance and the possibility of line leakage and maintenance. Hence the heavy, close-fitting welded zinc cover; the noncorrosive Monel faceplate on which are mounted the highly insulated cable studs; the use of the flanged tube as an entrance for drop wires. This tube can be completely sealed after the drop wires are installed.

The new Cook Terminal measures 7½" high, 3¾" deep and 2½" wide. It is furnished with or without cable stub, to user's specification.



kennecott telephone cable

is pre-tested to operating company requirements

Before a single inch of Kennecott cable leaves the mill, it is tested for Dielectric Strength, Insulation Resistance, Conductor Resistance, Capacitance and Fixed Dimensions. Such care in manufacture is your warranty of efficient, trouble-free performance in the field. Specify "Kennecott"—distributed by Stromberg-Carlson.

everstick anchors

. . . are designed to meet the most rigid anchoring and guying specifications.

The patented EVERSTICK Nut Housing locks anchor firmly on rod, making installation simple under all conditions and permitting easy recovery of the rod. Note well-designed, heavily constructed sections of metal in base plate.

EVERSTICK Expanding Plates are *ribbed* to double their original strength; their cutting edge and wedge shape arm socket reduces earth resistance to a minimum and assures easy expansion.

Three-Way EVERSTICK with expanding plates—contacts solid earth at every point around base plate, giving full benefit of earth's holding power.

Spreader Arms extra heavy ribbed with ball and socket joint at top and clinched socket on expanding plates allow heavy bearings to move freely with minimum friction, insuring easy expansion which eliminates buckling or breaking of arms.

EVERSTICK Anchor

. . . the anchor of merit

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Hemingray Communication Insulators

No. 9
Pony

No. 10
Exchange
Line

No. 12
Double Groove
Pony

No. 14
Deep Groove,
Double Petticoat Pony

No.16
Long Distance

No. 17
Toll Line

No. 22 (CSC)
Carrier Service

No. 42
Double Petticoat

No. 43
Top Groove, W. U.

No. 45
Long Distance
Double Petticoat

No. 50
Two-Piece
Transposition

No. 53
One-Piece
Transposition

No. 56
Point
Transposition

All Insulators above Have Pin Hole Size of 1 Inch

No.	9	10	12	14	16	17	22	42	43	45	50	53	56
Diameter at Base....inches	2¼	2 7/16	2⅜	2⅞	2 13/16	2 13/16	2⅝	3¾	3 21/32	3 9/16	3¼	3 9/16	3⅞
Overall Height....inches	3¾	3 9/16	3 5/8	3 13/32	3¾	3⅞	4	3 15/16	4 9/32	3 15/16	*	3⅞	3¼
No. in Carton....	50	50	50	50	50	50	50	40	30	40	25	30	40
Weight per Carton....pounds	31½	34½	31½	37½	52½	52½	55	60	59	66	49½	58½	59
Approximate Weight per 1000..pounds	630	690	630	750	1050	1050	1100	1500	1963	1650	1980	1950	1475

*Two-piece insulator: top 2 13/16 inches; bottom, 2⅞ inches.

LEICH—*Telephones Are Both Wall and Desk Models*

Not only the insulators...but also the pins, brackets, crossarms, poles, wire, rods, anchors...are available from Leich's efficient, helpful supply service

EVERYTHING a telephone company needs is available through Leich supply service.

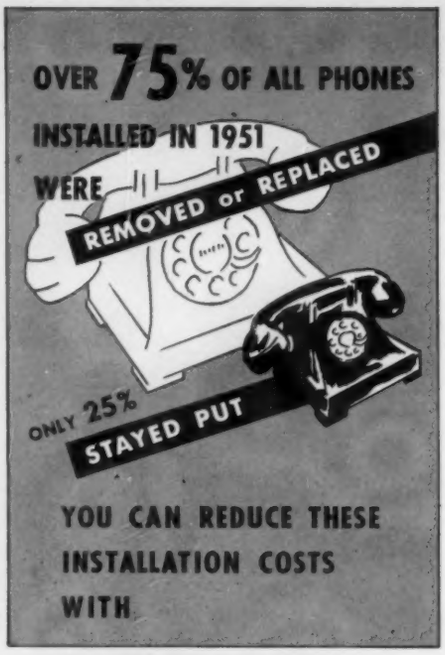
All the tools and materials are of the highest quality, are made by manufacturers who are well-known to the Independent industry.

What's more, Leich fully guarantees these materials, ships them as speedily and efficiently as possible.

You'll find that Leich supply service helps you get things done. Try it. Leich Sales Corporation, 427 W. Randolph, Chicago 6, Illinois.

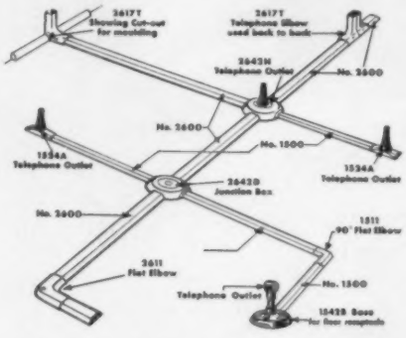
PAGE 46 FROM THE LEICH CATALOG

MANUFACTURERS OF TELEPHONES, SWITCHBOARDS AND RELATED APPARATUS SINCE 1907



PANCAKE

OVERFLOOR RACEWAYS



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ground he needed time to study the company's proposals.

V V

Nebraska Company Asks Rate Increase Permission

The Lincoln (Neb.) Telephone & Telegraph Co. recently asked the Nebraska Railway Commission for permission to increase its rates.

Merle M. Hale, vice president, stated that rising costs of doing business, including a general wage increase last month, are the reason for the request.

Rates for service were not specified in the application, which was filed on Sept. 12.

"We have asked the commission for additional revenue sufficient to provide a fair and reasonable return on the company's investment," Mr. Hale said. Rates will be set after the commission has studied the facts and made its decision, he added.

The new wage contract signed last month boosted wages $2.50 to $5.00 per week. This is in line with the upward wage movement which has occurred in the telephone and other industries. It is the company's third wage increase since 1949.

The company's payroll has tripled in the last 10 years and is now running 16 per cent more than in 1949, the last time telephone rates were increased.

Taxes are four times more than 10 years ago and have gone up 95 per cent since 1949. Nearly one-third of the money the company received from customers last year went for taxes.

The cost of materials and supplies such as poles, wire, cable, trucks and telephones has more than doubled since 1942 and is up 9 per cent since 1949.

Since April, 1949, the company has been required to add $6,310,000 in plant and equipment, an increase of one-third, to meet pressing demands for service. This was necessarily done at current high cost of materials and labor and resulted in a substantial increase in the investment per telephone. The result has been a decline in the company's earnings.

To finance this program of plant additions, the company has sold $5,290,000 of its bonds and common stock since April, 1949. Further substantial additions are needed to keep pace with service demands. Money for these additions must come from investors, and it is contended they will not put money into the business unless earnings are sufficient to assure a reasonable return and safeguard the investment.

The company has had two rate increases since World War II. The first raised rates 19 per cent in 1947 and the second 9.8 per cent in 1949. Rate increases in 1949 ranged from 10 cents to $1.50 per month.

The company operates 109,000 telephones in 124 exchanges in the southeastern 22 counties of Nebraska.

V V

OK's Supplement to REA Loan For N.C. Company

The North Carolina Utilities Commission on Sept. 9 authorized the Eastern Rowan Telephone Co., Granite Quarry, to complete arrangements for a new REA loan by giving the REA a deed to its properties as security. The commission approved the loan last Apr. 25.

Eastern Rowan is borrowing an additional $80,000 from the REA's telephone loan fund in order that it might expand and improve its rural service.

V V

Rate Raise Granted within Two Months of Application

The Ohio Public Utilities Commission acted with dispatch on Aug. 26 in granting a rate increase of $55,353 to the Champaign Telephone Co., Urbana, on the heels of a hearing on the increase (TELEPHONY, Aug. 9, p. 28).

The case is one of the few in which an increase has been applied for, investigated, aired in public hearing and granted within the space of two months.

Commission members said the company was fully justified in seeking higher rates. Present charges, the commission said, were obviously too low.

The new rates, which will make the rate of return 5.51 per cent, are effective on the company's next billing date.

V V

Rural Rate Raised for Nebraska Company

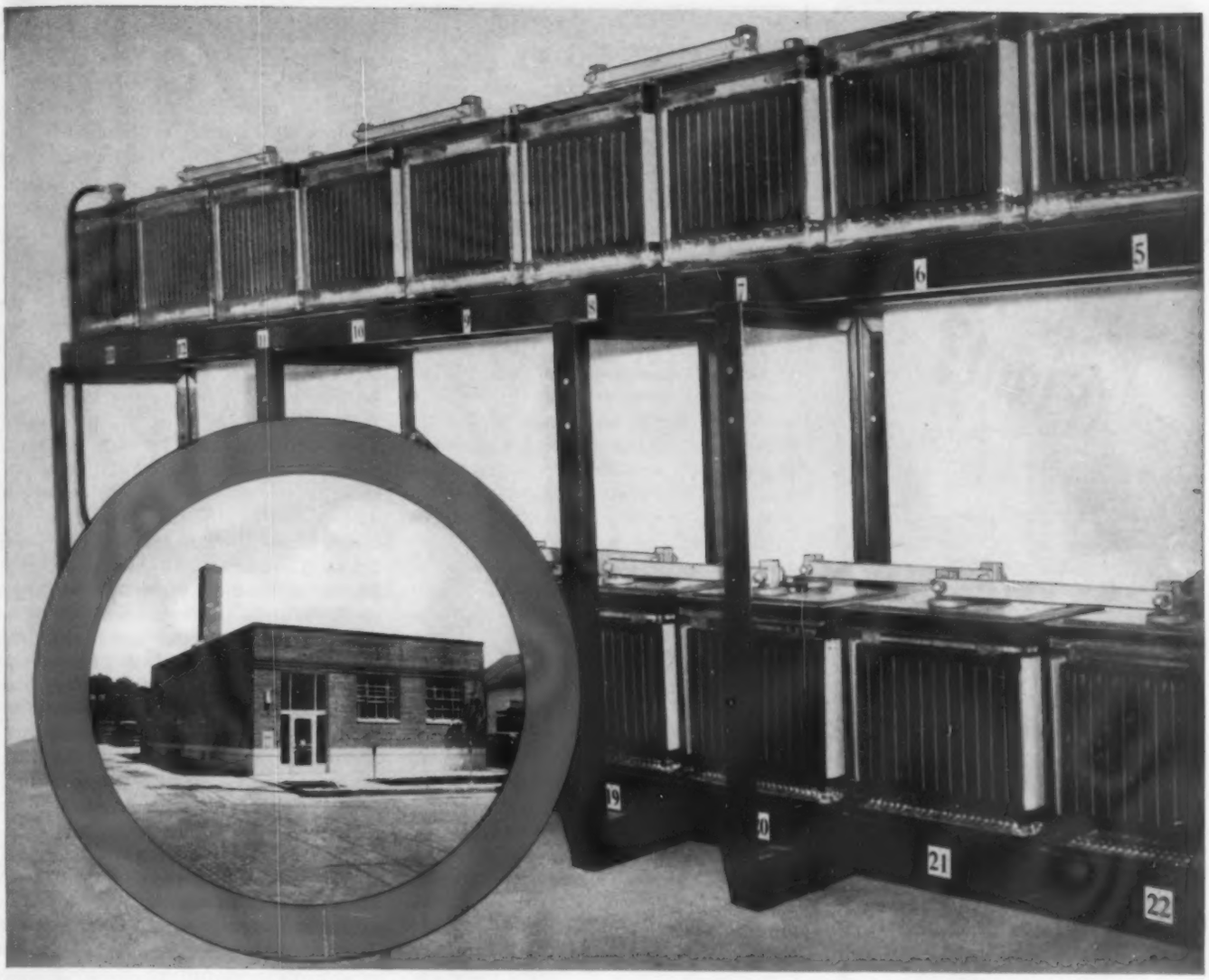
The rural rate for the Scotia (Neb.) Telephone Co. recently was raised from $2.50 to $3.00 per month by the Nebraska Railway Commission. The rate is gross and includes a 25-cent discount.

The company's application showed that rates for business and city residence subscribers had been raised twice since the last adjustment for rural service.

Increased maintenance and operators' wages made the application necessary. No objections from any source were received at the hearing of the case.

New rates will produce $852 per year in additional revenue, based on present development. Total annual rev-

(Please turn to page 47)



Wisconsin Dells Exchange of General Telephone Company of Wisconsin.

Two-step rack of 26-cell EME-25 Exide-Manchex Battery

IN WISCONSIN DELLS, DEPENDABLE, LONG-LASTING

Exide-Manchex BATTERIES

Here's a typical example of the telephone progress being made in the smaller communities of America's greatest dairy state. Just recently the Wisconsin Dells Exchange was converted to automatic operation with 1300 subscribers. Automatic equipment consists of 900 lines which handle approximately 10,000 calls per day. Equally modern and efficient is the battery that is used—Exide-Manchex, the battery that assures:

POSITIVE OPERATION: Dependable performance for all telephone battery requirements—central office and private branch exchange equipment.

ADEQUATE RESERVE POWER for emergencies beyond normal needs.

LOW OPERATING COST: High electrical efficiency.

LOW MAINTENANCE COSTS: Water required about twice a year. No change of chemical solution needed during life of battery.

LOW DEPRECIATION: Sturdy, long-life construction, which includes the exclusive manchester positive plate.

GREATER CAPACITY in a given amount of space avoids overcrowding of equipment.

• • •

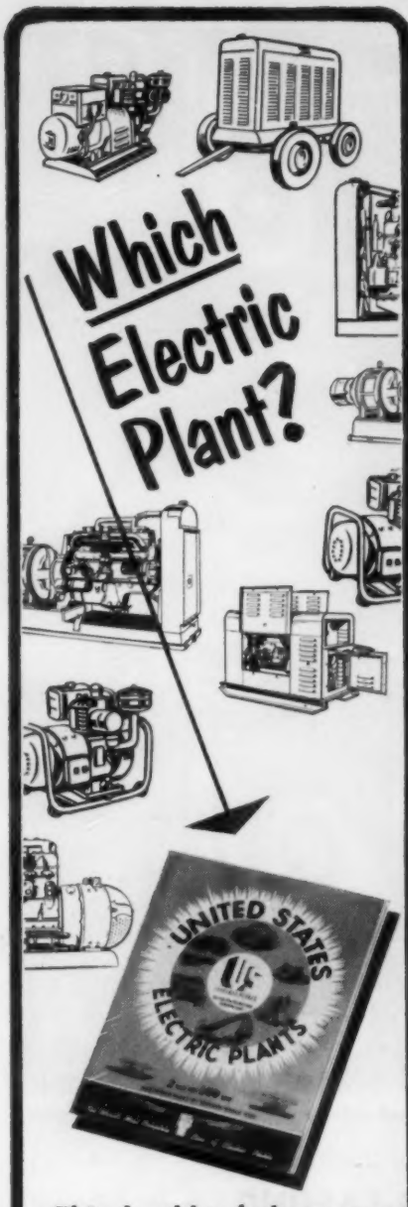
Various sizes and types of Exide Batteries, up to 100 ampere hours capacity, are available in plastic containers.

THE ELECTRIC STORAGE BATTERY CO.
Philadelphia 2

Exide Batteries of Canada, Limited, Toronto

"EXIDE" and "MANCHEX" *Reg. T.M. U.S. Pat. Off.*

1888 . . . DEPENDABLE BATTERIES FOR 64 YEARS . . . 1952



This booklet helps you choose the right unit for your needs . . .

This free booklet will help you select the right type, the right size, starting method, etc. for your particular application. *Whatever* you need, you'll find it in the "U.S." line — for U.S. builds over 300 models, backed by more than 60 years of manufacturing experience.

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The Place of Bank Loans

(Continued from page 17)

large enough to retain management in competition with other sources of employment which the management might consider. Further, since the telephone industry is a business depending upon complicated technical knowledge, the company should be able to provide adequate compensation for the skilled managerial personnel that the industry demands. Since confidence in the integrity and ability of the management is essential, and since representations by the management constitute an important part of the analysis of the program of any company, it has been a policy to receive applications from and to negotiate only with the applicant company's management and/or their designated representatives.

Chase looks not only to the record of the company in the past as an indication of the capabilities of the management, but also makes use of such other sources of information as may be available. Complete detailed budgets, definite plans for improvements, financial statements and crystallized plans for maintaining a sound financial structure are good criteria. A soundly conceived and executed program requires planning and control; and, essentially, financing of a construction program is based upon future expectations rather than past history. In this connection, it is important to note that Chase, like other commercial banks, is subject to various regulations which make it imperative that adequate records be available to support the soundness of the loan. These are not usually materially different, however, from those which your experience has indicated are required by regulatory bodies in connection with your financing plans, rates and other matters.

To be considered eligible, a proposed loan must be for a sound purpose such as improved service, greater efficiency, the provision of service for more subscribers, etc. A bank loan, substantially to provide for deferred maintenance or entirely to refund existing indebtedness would not ordinarily be considered desirable. In many cases the integration of several small companies into a sound operating unit is a constructive thing and a definite goal to be achieved. When such plans are accompanied by formalized measures to maintain sound capital structures, this kind of purposive integration may well be something in which a bank may take a part.

Any project in connection with which a loan is incurred should be complete within itself. It is a very easy matter for a company to create a situation, by providing for only part of a project which must be completed once started, which will not permit it to complete the financing. In all applications, Chase is interested in knowing the over-all requirements so that this unfortunate situation may be avoided.

Many times, after the total program is reviewed, it is apparent that the entire project cannot be accomplished solely by use of borrowed funds and some amount of equity securities must be sold either prior to the initial borrowing or as the program progresses. This situation can be met in many cases by dividing the construction into several projects, each one complete within itself. In such instances the credit might provide for separate loans for each project conditioned upon satisfactory refunding of, either in whole or in part, the previous loan.

It is necessary to know that the company is insured against normal business hazards—fire, casualty, etc., either by commercial insurers or by an adequate plan based on self-insurance. Along this line it has been very encouraging to us at the Chase that a group of the major casualty insurance companies have banded together to provide insurance coverage in certain areas against the risks of sleet and storm damage to outside plant for companies employing construction credits. Certainly insurance is a proper charge to expense and full provision for insurance should be made.

Adequate earnings are a prerequisite to the sale of securities and all too frequently it has been found that rate structures are too low—much too far behind the times to reflect increased wage and material costs—to permit sound and conservate financing of a

Answers to Questions on Page 20

(1) Say, "I'll try to remind you, but I may be busy on another call."

(2) The operator should determine and enter the chargeable minutes and "failed to nfy" on the face of the ticket. If the chargeable minutes exceed the specified period, the ticket must be referred to the supervisor.

(3) The answer to this question is covered in detail in the "Preface" to the questions and answers.

(4) Yes.

(5) Yes.

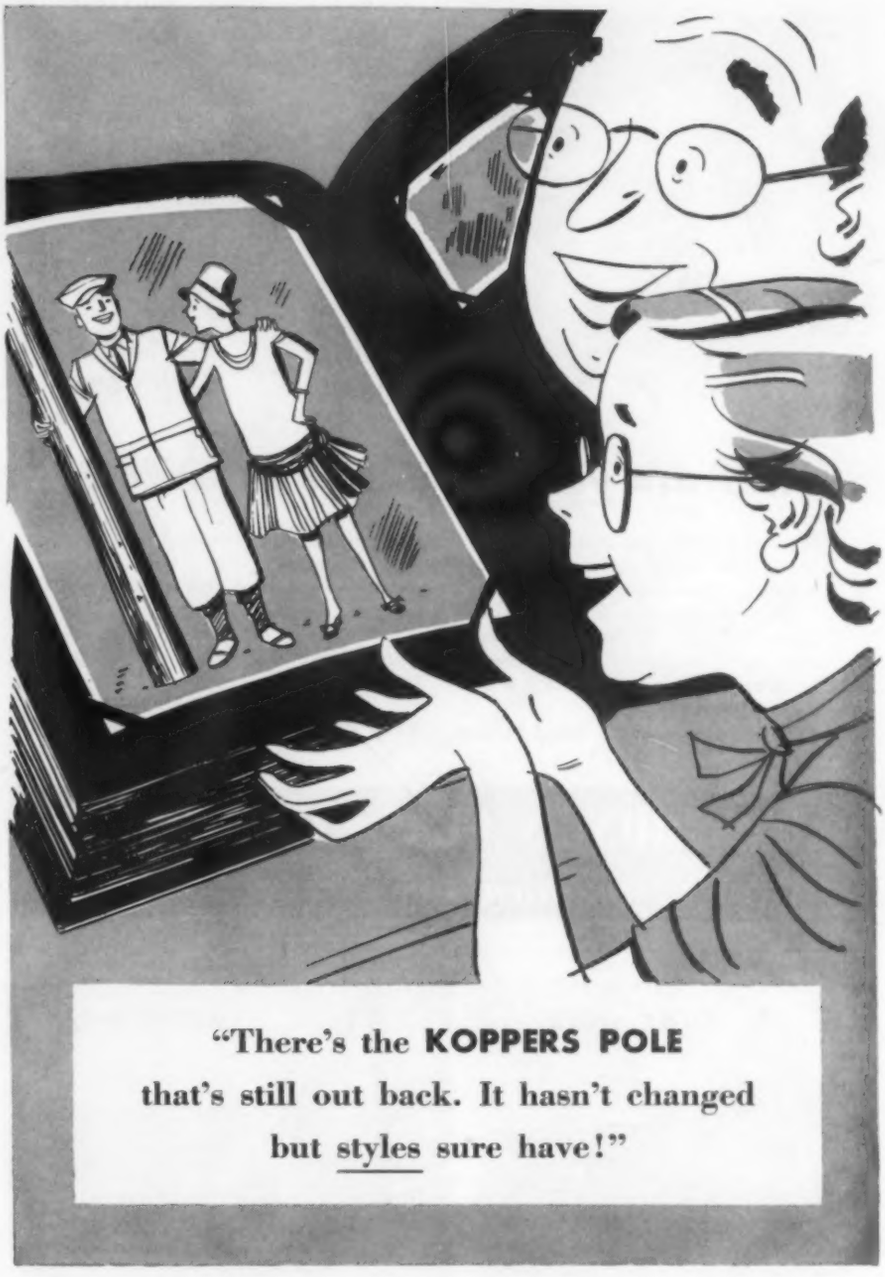
company. Particularly is this true in the case of the smaller companies.

Small telephone companies, like small businesses generally, are an important and desirable part of our national economy. They do, however, lack some of the economic advantages of larger units and deserve the help of all of us. One of the best ways to help them would be to make their securities, particularly their stocks, such sound and attractive investments that investors will eagerly seek these securities. A most important step in this direction would be for regulatory bodies to permit these small companies sufficiently high rates of return to accomplish this. Such encouragement is especially in order where rate structures compare favorably with adjacent areas and substantial additional investment funds are required for expansion and improvement in telephone service.

Regulatory bodies thus have the opportunity of making a great contribution for local development and the encouragement of an important part of our private enterprise system. Small progressive telephone companies are as much entitled to encouragement as are other segments of our economy, whether by means of higher rates of return or other inducements to perform and advance vital services. Obviously if some other enterprise offers a better rate of return (other factors being equal or compensated for), that enterprise will succeed in obtaining the funds-seeking investment and there is no magic in a fixed unalterable return. What may be adequate at one time may, because of changed investment conditions, be inadequate at another time.

Quite often, although a situation may be basically bankable, the applicant company would be best advised to consider long-term financing immediately rather than go through an interim financing period. Commercial banks are mindful of this because the best interests of the industry as a whole are our best interests and we at the Chase have assisted several companies in arranging for immediate permanent capital.

The company that is too small, even in the foreseeable future, to market its securities through the normal channels of utility financing, poses from the bankers' standpoint the greatest problem and a loan to such a company must, in most cases, be repaid from earnings within a reasonably short period of time. Although this approach apparently contradicts an earlier statement, it is practicable when there is a finely developed spirit of cooperativeness expressed by the regulatory authority, for it requires that the tele-



● For styles may come and styles may go, but Koppers Poles go on and on.

Koppers Poles are famous for the way they last; for the way they give decades of dependable service; for the way they make line operation easier and more economical.

It will pay you to specify Koppers Full-Length Pressure-Creosoted Poles. You'll get the kind of pole service you like.

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KOPPERS PRESSURE-CREOSOTED WOOD

What are your insulator problems?

Whatever your insulator problems, you'll find their solution in Armstrong's Glass Insulators.

They are molded of highly inert industrial glass to resist weathering and surface leakage. And they're built to take heavy loads and severe thermal shocks.

Their pinholes are hand-gauged for uniform accuracy of thread contour. Linemen like their safe, smooth seams. Yet with all their advantages, they are low in cost.

For details, see your supplier or write Armstrong Cork Company, Glass and Closure Division, 295 Fifth Avenue, New York 16, New York.

ARMSTRONG'S GLASS INSULATORS
for communications . . . for power

TEL-E-LECT "325" Attachment . . . Derrick and Digger Unit

For 3/4 and 1-TON TRUCKS

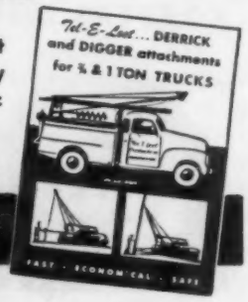
Now your regular telephone service truck can be put to the added use of pole setting. Normally it will take two men less than ten minutes to set up the derrick, attach the digger, dig the hole and set the pole—all ready for tamping. It's all accomplished with the Model 325 Derrick and Digger Attachment, made to fit all service trucks as illustrated.

Write for Bulletin 325.

★ Answers the need for a two man construction crew

★ Sets poles up to 35'; takes augers 8" to 20" diameter

★ Packaged unit for installation by your local mechanic



TEL-E-LECT PRODUCTS, INC.

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phone company be in a position to assure the bank that it will be able to retire the indebtedness within a normal commercial banking period—and this necessitates adequate earnings.

Many times the fundamental credit problem is eased if the prospective borrower has an additional source of income, independent of the telephone company. In other cases, life insurance on the life of the proprietor, manager or principal stockholder, whichever the case may be, is the mitigating factor.

Many regulatory commissioners with whom we have discussed this problem of the small company are fully conscious of the seriousness of the over-all situation, and perhaps the best advice a banker can give you under the circumstances is to review your particular case with your commission.

Although, for a company that has never before been through the experience, financing a major expansion program may seem to be one of the world's most arduous and overwhelming tasks, we of the Chase want to assure the Independent telephone industry that this need not be so since it has the interest of the financial community.

Furthermore, it has become quite clear that what an owner needs to do to have a successful business, from the standpoint of good service, adequate rates and public support, are the same things he needs to do to secure proper financing. One is a complement of the other and they work together as a team.

(The foregoing is an address presented by Mr. McMahon at the 1952 Minnesota, Iowa, Ohio, Kansas-Missouri and Arkansas state conventions.)

Maintenance Testing

(Concluded from page 22)

nector switch is shown on the drawing, other features of the switch being omitted.

The "A" and "D" relays have two windings each, which are nearly identical in all respects. As a result of identical impedance, the voice currents are compelled to pass through the capacitors separating the two station circuits as shown in *Fig. 3.*

(To Be Continued.)

V V

>> More than 5,500 paystation telephones are available for members of the nation's Armed Forces in major military establishments throughout the United States.

In the Nation's Capital

(Continued from page 14)

aware, the government has gone further, through such legislation as the Rural Electrification Act, crop insurance, disaster loans, etc., to see that agricultural community is made about as secure economically as any calling can be made within the framework of our enterprise system.

Private commercial business certainly does not have such protection and painstaking care from the government. Instead, the private utility companies (telephone and electricity) have been spurred by government and co-op competition to make the farmer a preferred customer. The political explanation is obvious enough. The Republicans simply could not hope to win the election without farm vote support in such supposedly strong Republican states as the Middle West corn belt. It is doubtful if the Democrats could get very far without some farm state support.

Politics to one side, however, it is an astonishing fact that the American farmer had succeeded in making a good thing out of a declining business. When any other line of business goes into decline (take the transit business as a current example), those who remain in it do not show increased earnings. They generally show just the opposite and finish off in a sea of red ink.

The paradox is that while farmers have never had it so good since World War II, relatively speaking, there are today fewer farms and fewer people living on the farms. Just a few figures will show readily that farming is a declining business and the farmers have made the most of it. The man with the hoe has become the man with the Cadillac. Before World War I nearly 15 per cent of the national income was derived from farming. During the late twenties the proportion had declined to less than 10 per cent, and during the depression it hit the bottom of 6 per cent. But today it has recovered only to the extent of 8 per cent.

The number of farms has dropped from 6,400,000 in 1910 to 5,400,000 in 1951. The number of people living on farms dropped from 32,000,000 in 1910 to 23,000,000. And this decline, it should be noted, has developed in the face of *counter-expansion* of the general population from 92,000,000 in 1910 to more than 150,000,000. We know the reasons for the drop in farm population—the consolidation of farms for

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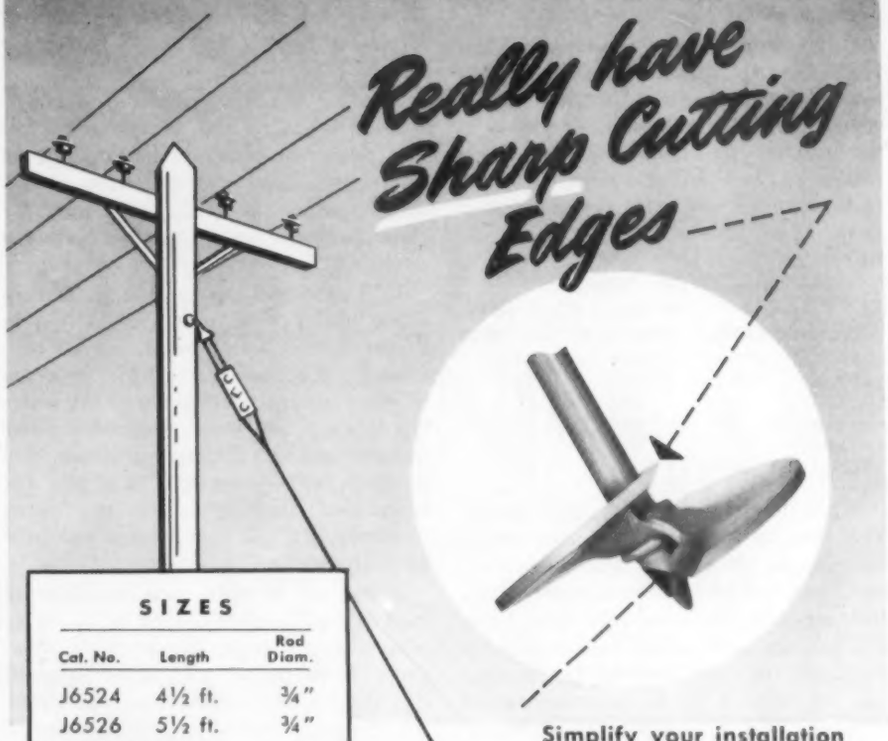

SIZES

Cat. No.	Length	Rod Diam.
J6524	4½ ft.	¾"
J6526	5½ ft.	¾"
J6528	5½ ft.	1"
J6530	5½ ft.	1¼"
J6550	8 ft.	1¼"

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Simplify your installation of guys with this unique earth anchor

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Forged eye with 3 circular grooves—center groove used for single guy; outer grooves divide load uniformly when using 2 guys.

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Complete Pole Line Equipment

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mass production methods and the use of mechanical equipment, rendering unnecessary the large number of farm hands which used to be required to produce less.

But the income per person on the farm (and this takes into account only income from farming) is today about 45 per cent of the income per capita in the rest of the United States. This compares with 20 per cent to which farm income dropped in the depression days. The following table tells the story:

	Income Per Capita		
	Farm	Non-farm	Farm as % of Non-farm
1910-14	$134	$470	28.5
1917-20	294	710	41.4
1925-29	226	812	27.8
Depression	88	434	20.3
1935-39	176	606	29.0
1947-51	689	1,542	44.7

What had brought all this about? The obvious Democratic answer would seem to be that New Deal legislation and farm aid policies were responsible. But, actually, the same New Deal farm aid policies have never been tested by a market in which general supply outran the demand for an extended period of time. This is another way of saying *the farms support program has worked because of the terrific demand for wheat, corn, cotton, and other farm products. In short, it was the war and postwar boom which saved farm parity.* It may be that General Eisenhower missed a bet by failing to point this out.

But for other segments of our economics—such as the utility industries—a more serious question may arise during the four critical years ahead. The question is this: *How will the farm parity program operate during a period of declining employment?*

It is easy for the politicians to talk about parity when crops are selling in a free market above price support programs. The real test of the program is when general prosperity of the country sinks to the point where the other classes—general industry, utilities, city workers, etc.—must not only pay for their own hard times but pay extra to insure that the farmer does *not* have hard times.

It will not be until such time arrives that the general taxpayer is likely to complain or even think very much about farm parity and price support. But if and when that time does come, the general citizenry may call for a review if not a halt of this well-established policy of making one branch of our economy secure at the possible expense of the other branches. In such an atmosphere, the taxpayers might be less disposed to pour out money in loans, "grants," or other benefits for the farm population alone. There is a thought here for all businessmen, but especially for telephone and electric companies whose own operations have come so definitely under the gun of a strong "pro-farm" government policy up to this point.

Our 70-year Labor Movement

The Labor Day holiday which we all celebrated early this month, marks the 70th anniversary for that celebration. The event called for some historical comment from the American Federation of Labor. It also prompted various commentators to reflect on progress and development of the labor movement in the United States.

It was in 1882 that the idea was born at a group meeting of AFL unions in the old Clarendon Hall in New York City. AFL was a feeble infant, less than a year old at that time, being nursed along by its indomitable founder president, the little New York cigar maker, Sam Gompers, who headed the national federation until he died in Texas in 1923.

It was only a loose federation of bricklayers, freight handlers, typographers, painters, and other building craftsmen. The Labor Day inspiration came from Gompers' friend and colleague, Peter J. McGuire, who founded the Brotherhood of Carpenters, which was started in St. Louis.

Pete shared the dirt-floor shack, with crate desks, which Sam Gompers called "office," in those days when the AFL top executive drew $20 a week for salary and expenses. At this particular meeting in 1882, Peter McGuire pondered over the whys and wherefores of holidays. There were days memorizing soldiers, statesmen, explorers, musicians, and even poets. But nowhere could he find a day for those who, to use his words, "from rude nature, delved and carved all the grandeur we behold."

As McGuire warmed over the idea, with the fire of his Celtic oratory, his fellow members cheered and asked him to pick a day. He arbitrarily set it between July 4 and Thanksgiving, and since the first Monday of each month was usually meeting day for the unions, that is how Labor Day was born. It did not become a national holiday until 12 years later when some 30 states had recognized it and President Grover Cleveland proclaimed to the nation that this day should be set

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SMALL SIZE! LOUD RING!

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Greater sound carrying power combined with clear, distinctive tone is created by the "Slow Stroke" action plus the prolonged vibration of the bell shell. This effect has been proven to be greatly superior to the buzzer like action of ordinary bells. Only one moving part (the plunger) minimizes wear. Polarized . . . no contacts to spark, arc, stick or wear. 2½" or 3" diameters, for operation on standard A.C. voltages; with adapter plate for mounting on standard outlet boxes. Also available in a variety of mounting arrangements and finishes for use as components on original equipment.

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Open back models designed for simple bracket mounting on strap or chassis.

Enclosed back with adapter plate suitable for direct mounting on a 4" round or octagonal box.

Enclosed back with terminal block for screw connections.

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aside to honor the working men and women of the United States.

It was in comparison with such humble beginnings that we can appreciate the great strides organized labor has taken in this country of ours. But all of the comparisons are not clearly in the nature of progress. Sam Gompers built the mighty AFL on a firm foundation of recognition of the enterprise system as a basis for labor's welfare. "The greatest sin capital can commit against labor," Gompers once said, "is to fail to make a profit."

Gompers also steadfastly refused to permit his labor movement to be captured by any political party or, in turn, to endorse any political party or its candidate. Labor, he said, should seek to "reward its friends and defeat its enemies" regardless of party affiliation. A third cardinal principle of Gompers was his dedication to a democratic form of unionism, whereby union leaders would be truly representative and responsible to their membership and where union balloting for office or policy should be free, secret, and uninfluenced.

We have but to see the contrary attitude of some union leaders today on all these cardinal principles to realize that the early ideas of Gompers and McGuire have undergone a good deal of change in some quarters.

When we see union representatives constantly heckling efforts of management to make a profit for company investors—and flirting with government seizure and public ownership schemes—when we see them organizing political conventions, "endorsing" candidates and writing "platforms," we must wonder what little Sam Gompers would say to all this if his spirit could come back and talk to us. When we see union leaders stumping for the repeal of the Taft-Hartley Act with its provisions for secret strike ballots, and other provisions to make union leadership more responsible, we know that unions have come a long way since the early times of Gompers and McGuire. It is a fair question, however, whether some of them have come too far for labor's own good.

V V

Illinois Exchange Sold

The Illinois Commerce Commission has authorized the Woodlawn Telephone Co., of which D. A. Stephenson is president, to purchase the Waltonville exchange of the Tri-County Telephone Co. Mr. Stephenson plans to rebuild the property and convert it to dial operation.

Courts and Commissions

(Concluded from page 40)

enue is now estimated at $10,720 and expenses $7,767, exclusive of $907 in taxes. Net return based on the new rates is 3.99 per cent on an adjusted net book rate base of $51,188.

The company took only $173 for depreciation in 1951 on a fixed investment of $55,635. The commission considered this grossly inadequate and the amount was adjusted for the rate application.

Failure to take adequate and allowable depreciation resulted in a distorted figure for operating income and caused the company to pay a larger amount of corporate income tax.

All of the company's telephones are dial operated.

V V

Denies Bell Florida Increase

The Florida Railway & Public Utilities Commission on Sept. 3 refused to grant a rate increase sought by Southern Bell Telephone & Telegraph Co.

The tale of the TIRED CLERK

Once upon a time, there was a store, and in the back were telephone booths. In front of the store, there was a counter and a clerk who was supposed to sell merchandise.

But the clerk didn't have time to sell. All day long, customers stopped her, asking, "Where's the nearest telephone?" And they were grumpy from looking for a phone they couldn't find and were not at all polite.

Then, one day, the phone company installed Gladwin Plastic Telephone Signs. More people came into the store to use the phones. They passed the clerk's counter, but the only questions they asked were about her merchandise.

The people were happy to find the phones. The clerk was happy. The store owner was happy because he was rendering his customers a service . . . and increasing his sales. The telephone company was happy because they had built good will and bigger profits with Gladwin Plastic Telephone Signs.

These GLADWIN SIGNS OF SERVICE point the way to GOOD WILL . . . AND PROFITS

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Dual purpose indoor-outdoor signs. Engraved cutout blue plastic panel is superimposed on annodized aluminum, providing high contrasts and excellent reflection. Self cleaning outdoors. Available in single or double face.

Gladwin 300 Series . . .

Fluorescent letters project from a dark ground to form a beautiful sign of unexcelled visibility. Single and double faced signs.

Gladwin 400 Series . . .

An enlarged adaptation of the 300 Series, perfected for installations where the number of booths and needed legibility is greater.

Gladwin public telephone signs are designed to fulfill the most exact requirements of telephone companies everywhere. For information contact Mr. George Phillips, Jr., our specialist in service to telephone companies, or write for Catalog 5100.

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Foreign News

From TELEPHONY's correspondent in the East, Kaskry.

The government of Pakistan is reported to have sanctioned construction of a Posts & Telegraphs Department equipment manufacturing factory in the frontier province at an estimated cost of Rs60/lakhs. The factory will be located at Haripur in the Hazara district and its opening ceremony is likely to be performed by the governor-general, Ghulam Mohammad, next October. The director general Siddiqi of Posts & Telegraphs has arrived in Peshawar from Karachi and is conferring with representatives of the Provincial Government on the matter. With the establishment of the factory —first of its kind in Pakistan—the NWFP will take an important step forward towards industrial development. "Semiz," a well-known Czechoslovakian manufacturing firm, has been entrusted with the task of not only providing and installing heavy machinery and equipment for the factory, but of training the Pakistan technical personnel as well.

The Pakistan Posts & Telegraphs Department announced on Aug. 22 that direct telegraph-telephone service between Karachi and Dacca is available now for 24 hours. Cheap and fast telecommunications between Karachi and Dacca aim at bringing East and West Pakistan closer together. On partition, the two wings of Pakistan were connected through Calcutta by land lines. Telephone calls and telegrams from West Pakistan had to pass through a number of repeater stations in India before they could reach East Pakistan. Direct wireless links had, therefore, to be established between the two parts of the country on a priority basis.

The first telegraph circuit went into operation in August, 1948, followed by opening of the telephone service in July, 1949. The second telephone channel was added later on. Equipment for increasing the number of channels to three telephone and nine telegraph is on order, and is expected by the end of the year.

A direct circuit (telephone-telegraph) has been planned between Karachi and Chittagong. At present the traffic for Chittagong is routed via Dacca, thus overloading the circuit between Chittagong and Dacca, which cannot keep pace with the fast growing commercial needs of Chittagong.

• • •

A direct radio-telephone service between India and Japan was to be opened Aug. 14. The hours of service will be from 12:30 to 2:30 p.m. on all weekdays. At present calls will be available only to the following places in Japan: Tokyo, Yokohama, Osaka, Kobe, Nagoya and Kyoto.

• • •

Line Stores factory at Kotri has gone into partial production. Khan Sardar Bahadur Khan, Pakistan minister for communications on Aug. 23 saw the factory working and was satisfied with the progress. The full production has been retarded due to delay in receiving the full consignment of machinery — orders for which were placed nearly two years ago. An officer of the Posts & Telegraphs Department is flying to London to expedite deliveries.

• • •

The Ministry of Communications, government of Pakistan, has called a conference of the Posts & Telegraphs authorities in Karachi. The conference, under the chairmanship of Khan Sardar Bahadur Khan, minister of communications, will review the progress in the implementation of the development plan in the field of posts and telegraphs. The conference will also map out a program of development for the next year.

V V

OBITUARIES

THOMAS J. DUPUIS, 77, Sigourney, Ia., pioneer Iowa telephone executive, died on Sept. 5.

Mr. Dupuis retired Aug. 1 as co-owner, with his brother Fred, of the People Telephone Co., Sigourney, which they had operated for 49 years.

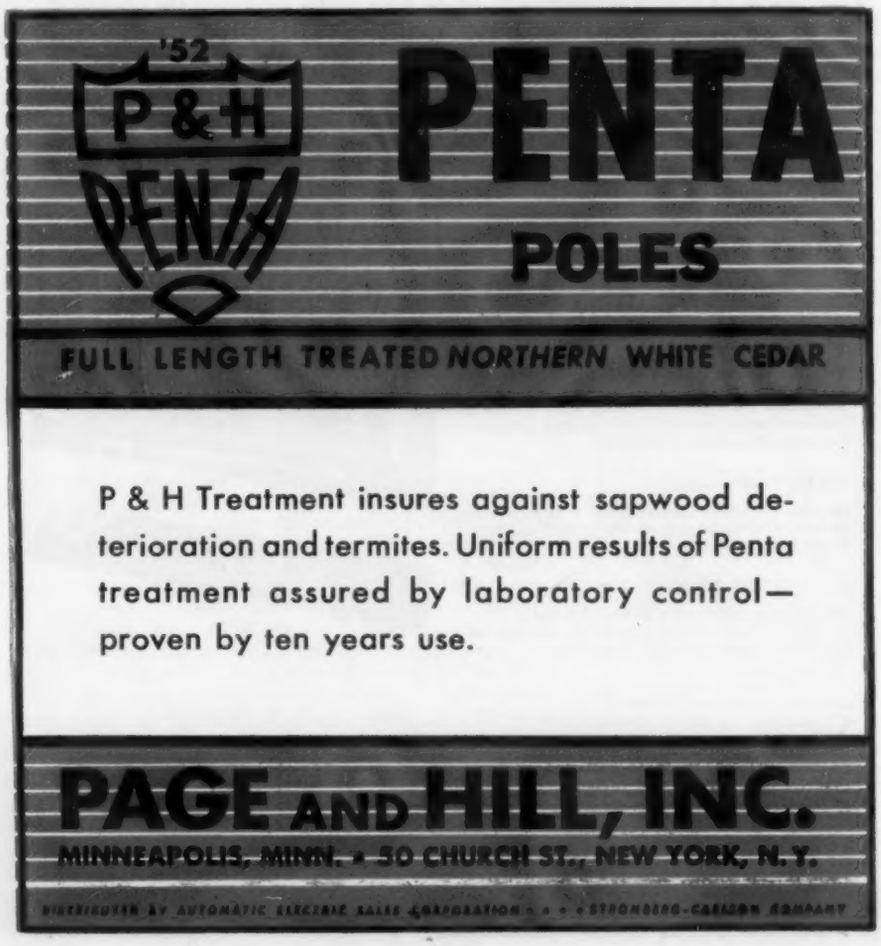
Born in Chicago, Ill., he and his father and brothers established their first telephone exchange in Washington, Ia. The family firm moved to Sigourney in 1903 after five years of operating an exchange at Keota, Ia.

Four brothers and two sisters survive.

• • •

LESTER D. MEYERS, Logan, Ia., pioneer Independent telephone man died Aug. 31 following a heart attack. He was 64 years of age.

Mr. Meyers was associated with the Boyer Valley Telephone Corp., Woodbine, Ia., since 1908 and was manager of the organization since 1928. He served on its board of directors the past 24 years, during which time he held every office in the corporation. At the time of his death he was secretary-treasurer and manager. His service was continuous with the excep-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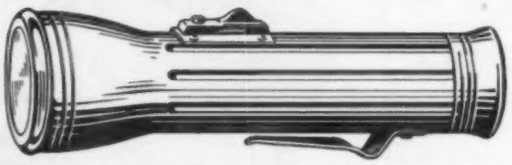
And don't forget these RAY-O-VAC items



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Ray-O-Vac LEAK PROOF flashlight batteries—Sealed-in-steel protection means these batteries stay fresh for years. Always ready for any emergency. Give you "light when you need it." Buy spares—they stay fresh.

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FOR *Time-Proved* *Specify* BATTERY-CHARGING PERFORMANCE

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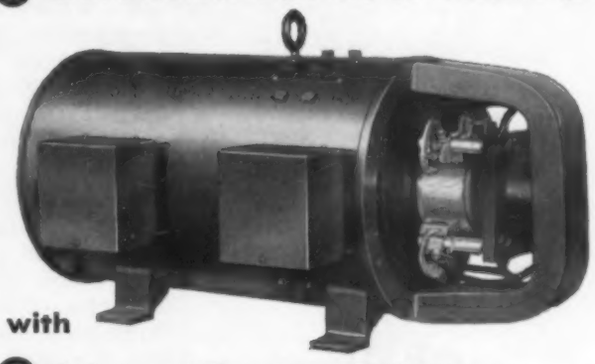
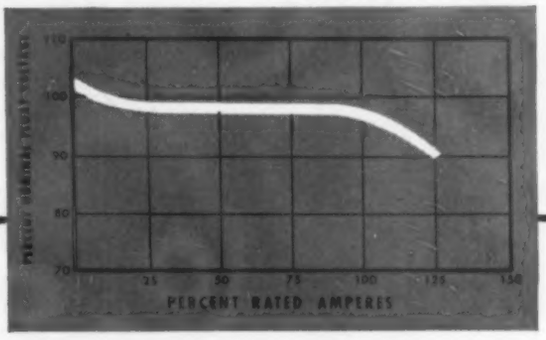


with

2 Inherent Constant Voltage . . .



Constant voltage delivered by E. P. Diverter-Pole Motor-Generators serves three important functions:

A—DECREASES RELAY MAINTENANCE. Keeping the voltage from rising too high helps to prevent "slapping" of the contacts that may result in misalignment, pitting and burning, and preserves the sensitive adjustment of the relays. High-coil current . . . with accompanying insulation breakdown, shorting and burning-out . . . is avoided.

B—INCREASES BATTERY LIFE. Operating records of many exchanges show that the E.P. Diverter-Pole Battery Charger increases battery life from six to fourteen years. High battery temperature, excessive gassing, and undue breaking down of the active cell material are prevented to assure the longest possible battery life.

C—IMPROVES VOICE TRANSMISSION. To assure satisfactory voice transmission, the Battery Charger must maintain the output voltage of the battery as close as possible to a constant value. Transmitters may become noisy if they are subjected to an excessively high voltage, and may have to be replaced because of permanent damage.

Write for Bulletin 209

EP

THE ELECTRIC PRODUCTS CO.
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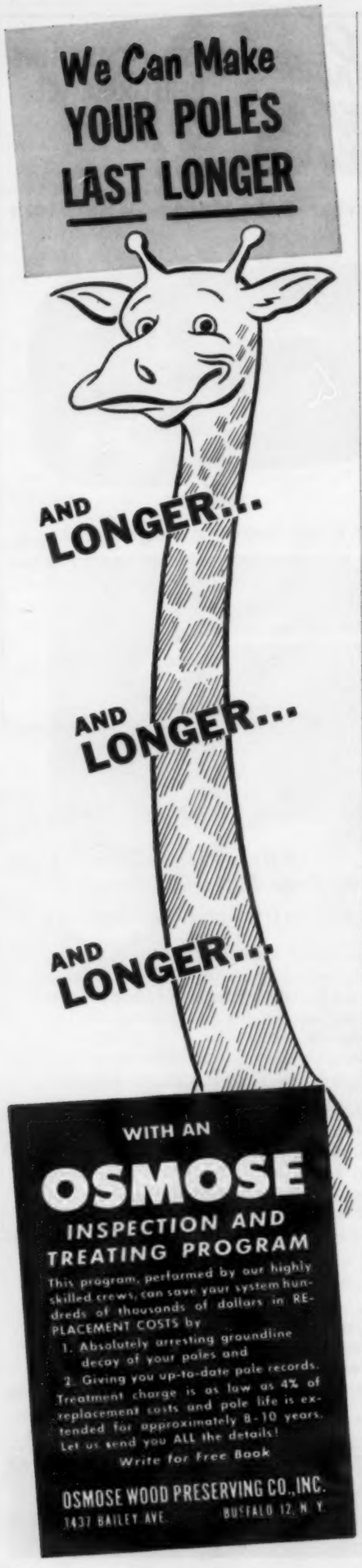
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LAST LONGER
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INSPECTION AND
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This program, performed by our highly skilled crews, can save your system hundreds of thousands of dollars in REPLACEMENT COSTS by
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tion of a year during World War I, when he was with Western Electric Co. as a telephone instructor at Iowa University.

He served as president of the Iowa Independent Telephone association from 1932 to 1934 and was a member of the board of that group for the past 25 years.

Mr. Meyers was born at Harlan, Ia., Mar. 4, 1888. He spent his early years on the farm and attended country school in Shelby County. He was graduated from Woodbine high school in 1904 and from Woodbine Normal in 1906.

Mr. Meyers is survived by one brother, Richard Meyers, and one sister, Mrs. T. R. Chapman, both of Morristown, Minn.; and three daughters, Mrs. E. I. Rogers of Dunlap, Ia.; Mrs. John W. Kellogg of Missouri Valley, Ia., and Mrs. Robert E. Callahan of Waterloo, Ia.

V V

New Co-op In South Carolina Buys Independent Company

The Santee Electric Cooperative, Inc., Kingstree, S. C., has sponsored the organization of the Farmers Telephone Cooperative, which recently bought the Mayesville Telephone Co.

R. D. Guerry, manager of the newly-organized telephone cooperative, announced that the Mayesville system serving the town will be used as a nucleus for serving the rural area.

V V

Plan Use of Communications In Case of War

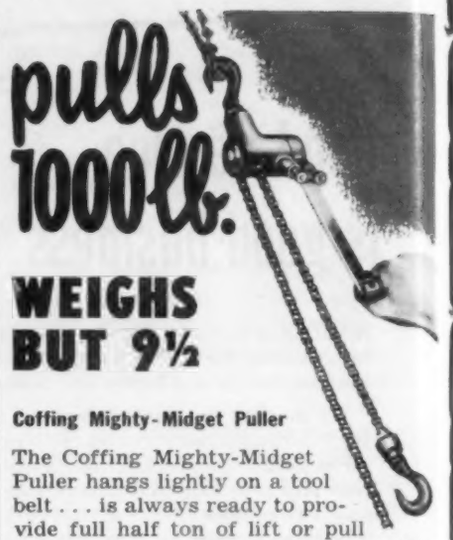
Haraden Pratt, telecommunications adviser to President Truman, announced on Aug. 28 that five government agencies had agreed to form a Telecommunications Planning Committee to draw up detailed plans for most efficient use of the nation's communications system in the event of war.

The agencies, Mr. Pratt said, are the Department of State, represented by the Office of Transport and Communications Policy; Department of Defense, represented by the communications-electronic director of the Joint Chiefs of Staff; Department of Commerce, represented by the director of the Civil Aeronautics Administration; the Federal Communications Commission, to be represented by one of its members, and the Central Intelligence Agency.

Other agencies are expected to participate, Mr. Pratt said.

V V

>> It has been said that a conference is the confusion of one man, multiplied by the number present.



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For more information on this light, powerful Mighty-Midget, write for bulletin T8MP.

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7 Quad #16 AWG Paper Insulated Lead Sheathed Cable. 2000 ft/reel .....$0.50/ft.*

Two (2) conductor twisted #19 AWG (3/#27 copper, 4/#27 steel) rubber insulation, weatherproof braid covered. 2640 ft/non-returnable reel $5.00/reel*

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Five (5) pair #19 AWG solid, latex, insulated, color coded. 1000 ft/reel $0.075/ft*
100 to 500 ft/coil.....$0.065/ft*

Four (4) conductor (Spiral Four) #18 AWG, stranded rubber insulated, color coded, shielded, rubber and/or Neoprene sheath containing steel wire reinforcing.

1320 ft/reel (Neoprene)..$0.05/ft.**
100 to 500 ft coils.....$0.04/ft.*

*f.o.b. Newark, N. J.
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AUTOMATIC ELECTRIC TYPE 32A32 dial switchboard equipped for 24 volt operation with:
50 line relays
5 line finders
5 trunk hunting connector switches
1 right-of-way connector switch
90 connector terminals
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This board is in good condition. Best offer gets it!
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1939 - 2½ TON INTERNATIONAL TRUCK, Model D-40. Speedometer reading 88107. Good condition. Equipped: American Coach and Body Company heavy construction body, tool and material compartments, double drum winch, true stop brake and power take off assembly, T-45 derrick, 8.25x20 tires mud and snow duals, flares, overhead mirror, spotlight and power take up reel. Inquire: Supervisor of Supplies, The Lincoln Telephone and Telegraph Co., P.O. Box 633, Lincoln 1, Neb.

FIFTEEN WESTERN ELECTRIC 26A REPEAT COILS, new, about ½ in original package. $75 for the lot, or $7.50 each. Large assortment magneto equipment and parts. Write E. A. Hosmer & Co., Communication Engineering, Kenwood, Calif.

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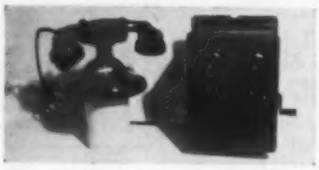

★ Western Electric #202 French phone with late F1 capsule transmitter
★ Western Electric Magneto ringer box with any ohm ringer

Price—2 units with 5-bar bell box $16.00
2 units with 3-bar bell box $14.00
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Leich #90A self-contained French phone with A.E. #24 Dial. St. Line or Harmonic ringers. Cleaned—Tested—Guaranteed. Price $13.00

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MANAGER for RTA-financed cooperative operating in West Central Illinois. Required: successful record of executive accomplishment, understanding of engineering and business experience as well as technical knowledge of automatic dial equipment essential. All applications to contain age, education, experience, minimum salary and small snapshot. Write McDonough Telephone Cooperative, Box 352, Macomb, Ill.

ADDITIONAL MAN NEEDED FOR COMPANY EXPANSION. This is a permanent position with good wages. Replies will be held strictly confidential and should include details of past employment and experience. Our company has 1,500 stations in two exchanges; one dial and one common battery. We are located in Southeastern Wisconsin. Write W. R. Kimmel, Sr., Pres., Union Grove Telephone Co., Union Grove, Wis.

MANAGER for rapidly expanding, extensive group of Western telephone properties. Must have administrative ability simultaneously to obtain efficient operations and achieve required, sound expansion program. Must have capacity to hire, train, and direct personnel in all phases of telephone work. Permanent position carrying substantial opportunity for qualified person. Technical, plant and commercial knowledge and experience absolute requirement. Salary commensurate with qualifications. Replies confidential. Furnish complete details of education, experience and objectives in first reply. Write Box No. 3232, c/o TELEPHONY.

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WANTED—COMBINATION MAN, WIRE CHIEF AND PLANT SUPERINTENDENT for midwest telephone company, operating two exchanges with total 3,600 stations. Exchange to be converted to dial in spring. Good opportunity. Write Box No. 3252, c/o TELEPHONY.

COMBINATIONMAN — permanent position, good wages, numerous employee benefits. Employment also affords opportunity for advancement. Replies are strictly confidential and should include details of experience and objectives. Write Union Telephone Co., Owosso. Mich.

COMBINATIONMEN—opening for qualified journeymen. Permanent position, good working conditions, employes benefit plan, opportunity for advancement. Replies should include details of past employment and experience. Write South Carolina Continental Telephone Co., Sumter, S. C.

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Seniors—ten (10) years' experience at least. Can use retired men in good health. Also one or two (1 or 2) First Class Linemen or retired foremen.

Salaries will be adequate, plus insurance and yearly bonus. Past working records must be clean. Positions will be permanent. Write Box No. 3239, c/o TELEPHONY.

CONTROLLER FOR LARGE CLASS-A TELEPHONE COMPANY. This position requires a thorough knowledge of accounting procedures plus experience in issuing securities and administrative ability. Please furnish details of education and experience. Replies confidential. Write Box No. 3241, c/o TELEPHONY.

EASTERN FIRM MANUFACTURING A PRODUCT FOR THE TELEPHONE FIELD, the acceptance of which is assured, needs man with engineering background. This is an exceptional opportunity for any sales engineer in telephone industry desiring bright future. Write Box No. 3229, c/o TELEPHONY.

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DIVISION MANAGER. This position requires a man with sufficient commercial, plant and traffic experience to manage all operations of a division consisting of approximately 30,000 stations. Please state education and experience. Write Box No. 3245, c/o TELEPHONY.

SALESMAN TO COVER MISSOURI AND KANSAS for telephone supply house on commission basis. Car furnished. Write Box No. 3190, c/o TELEPHONY.

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TRAFFIC SUPERVISOR—Class A telephone company operating approximately 33,000 stations, located in the Middle West. Must have experience in Manual and Automatic Central Office and have capacity to train and direct personnel in all phases of traffic work. Write giving background and experience to Box No. 3248, c/o TELEPHONY.

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The Board of Directors declared a quarterly dividend of 25 cents per share on the outstanding common capital stock of the company, payable on or before September 30, 1952, to stockholders of record at the close of business September 11, 1952.

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September 5, 1952

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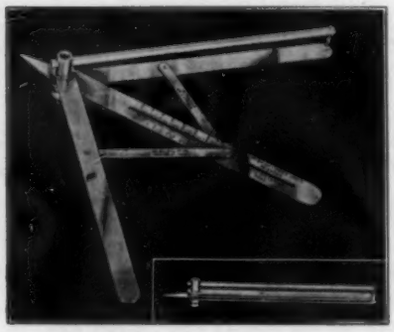

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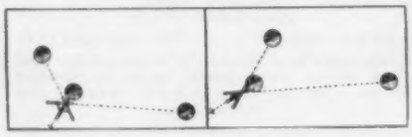

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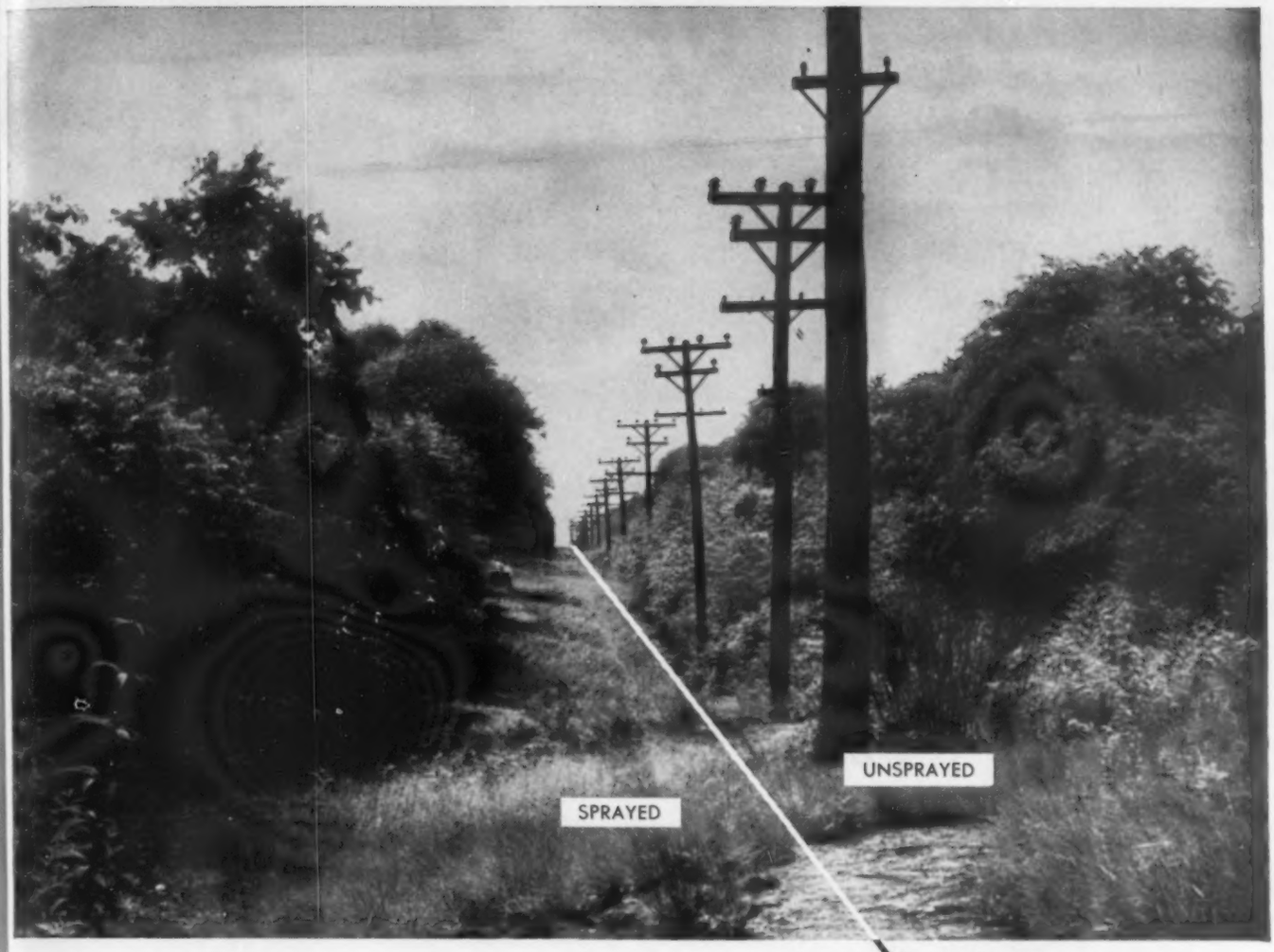

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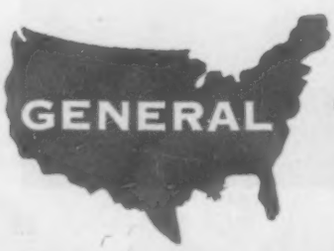

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